

## REMARKS/ARGUMENTS

By this paper, Applicant requests under MPEP § 710.06 that the Action of March 14, 2012 be vacated, and a new Action issued that complies with all regulations and guidance governing examination. Applicant maintains that the Office Action was not properly made final and finality should be withdrawn.

I.	Request for predictable examination procedure .....	48
II.	The Action is prematurely final because it raises new grounds of rejection not necessitated by amendment .....	52
	A. Rejection under 35 U.S.C. 112, second paragraph .....	52
	B. Rejections under 35 U.S.C. 112, first paragraph, written description, particularly Claim 197 .....	54
	C. Rejections under 35 U.S.C. 112, first paragraph, written description, “true lease” .....	55
III.	Because of Examiner refusal to observe MPEP § 710.06, NO action is properly pending, let alone a final Action .....	55
	A. The Action reflects bad faith examination: despite repeated requests, the Examiner refuses to make the showings required under MPEP § 2163.04, and refuses to answer all material traversed under MPEP §707.07(f) .....	57
	B. The Examiner’s refusal to answer all material traversed is obstruction, not examination .....	58
IV.	The Action relies on pure examiner fabricated rules of law, and cannot be the product of good faith examination .....	58
	A. The Action fabricates law: a so-called rule of law relating to “descriptive material” that exists nowhere in the law .....	58
	B. The Action fabricates new law out of thin air: so-called “objections” to the specification .....	59
V.	Rejection under 35 U.S.C. § 101 .....	60
VI.	Responsive Arguments to Particular Rejections .....	61
VII.	Formalities .....	61
	A. Specification .....	62
	1. “true lease” .....	62
	2. “at least some portion of the lease being or having been performed by processing data in a non-transitory memory of a computer” and “non-transitory memory” .....	64
	3. “a primary investor, secondary investor, or lender, who contributed capital to the asset or to an entity owning the asset” .....	65
	4. “payment for the tenant improvements lease being “segregable from” payments for the space lease” .....	66

5. “leasing the shorter-lived asset” and “longer-lived asset” .....	67
6. “displaying data on a non-transitory display” .....	67
7. “a solicitation to enter the improvements lease” .....	67
8. “a non-transitory network” .....	67
9. “managing or servicing the improvements lease” or “ soliciting, originating, managing, or analyzing the improvements lease” .....	67
10. data representing “a dollar amount of a transaction” and “a loan purchaser” .....	68
11. “hardware and software” and “computer programs” .....	68
12. Other language in Whole sale identification of claim language .....	68
13. Computer implementation of claimed steps.....	69
B. Rejection under 35 U.S.C. §112, First Paragraph.....	71
C. Rejection under 35 U.S.C. §112, Second Paragraph .....	72
a) Claim 181: “what kind of assistance” .....	74
2. “true lease” .....	75
VIII. Rejection Under 35 U.S.C. §101.....	75
IX. Rejection Under 35 U.S.C. §103.....	77
X. Conclusion.....	82

#### **I. Request for predictable examination procedure**

This application has been pending for *twelve years*. And it is now at a crossroads: in the 26 years that this attorney has been in practice, this application represents one of the most egregious examples of pure Patent Office obstruction, and outright refusal by examiners to follow the PTO’s written instructions, that this attorney has ever seen. However, if the course of conduct is indeed the product of good-faith disagreement, Applicant now requests that Examiner Subramanian and SPE Kyle simply follow the PTO’s written instructions, provide the procedural regularity guaranteed by law, and provide written explanations for all adverse decisions, as required by law. Applicant request that the Examiners answer all material traversed.

The issues were fully addressed by Applicant’s arguments in the reply of November 28, 2011. Applicant requests that the November 28, 2011 paper and the arguments therein many of which are repeated here be given full consideration now. Favorable reconsideration is requested. If the application is not allowed, Applicant requests examination in full compliance with all laws, not the laws made up out of thin air discussed below. Any further Action should answer *all* material traversed, as required by the Administrative Procedure Act, MPEP § 707.07(f), and

MPEP 2163.04. “The Examiner disagrees” and “See the previous Action” is not a helpful, or legally-acceptable, response from the Examiner.

The course of examiner action in this application is a prototype of the bad examination practices that create the backlog at the United States Patent and Trademark Office (PTO). “[T]he single most reasonable inference able to be drawn from the evidence.”<sup>1</sup> for the PTO’s conduct is to force an RCE, with its additional (but legally unwarranted) fee income for the PTO, and additional production counts for the Examiner, and to increase the legal fees for prosecuting the patent application so that applicants drop their cases and patent grants depend on how much money the applicant has rather than whether the applicant meets the legal requirements for a patent established by Congress. This is misuse of process. Any explanation *not* involving bad faith is not apparent to this attorney. It is crucial that the PTO distinguish a pattern of good faith error from a pattern of intentional delay—the Actions that this attorney must take are quite different. If the Examiner has a good-faith explanation for the deviations from procedure laid out below, this applicant requests both appropriate procedural relief (for example, the replacement Action required by MPEP § 710.06 and withdrawal of finality). Applicants also request an explanation of how the errors arose, so that recurrence can be headed off. In absence of either, this attorney will have no choice but take any silence as an admission of bad faith by the Office including Examiner Subramanian, SPE Kyle, and former T.C. Director Coggins, and will be required to seek appropriate relief for what certainly appears to be wrongdoing.

The pattern of delay and abuse extends back years. Three different examiners have handled this case and their SPE’s and former T.C. Director Coggins have also been involved in decisions and actions. Thus, the problems are systemic and institutionalized. For example, in January 2007, the second examiner stated in a telephone interview that the policy of Art Unit 3691 was to deliberately obstruct, and to deny allowance of meritorious applications.<sup>2</sup>

Since this application was transferred to Examiner Subramanian in early 2008:

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<sup>1</sup> The Federal Circuit recently clarified that a party makes out a case for misconduct and bad faith intent by showing that intentional misleading is the “single most reasonable” inference to be drawn from the evidence. *Therasense Inc. v. Becton Dickinson & Co.*, 649, F.3d 1276, 1290, 99 USPQ2d 1065, 1073 (Fed. Cir. 2011). It is not an applicant’s burden to exclude every other possible explanation before seeking relief.

<sup>2</sup> Interview Summary of Feb 26, 2007, ¶ 41.

- Examiner Subramanian's first action was to impose a restriction requirement. Applicant noted that no restriction was warranted, pursuant to MPEP § 704.01 and 706.01. The Examiner refused to honor these MPEP provisions, until reversed on formal petition in March 2010.<sup>3</sup>
- When Applicant block quoted a provision of the MPEP that would simplify prosecution, Examiner Subramanian wrote that the explicit MPEP instruction "would not be in keeping with proper examination procedure."<sup>4</sup>
- Examiner Subramanian sent an Action that ignored a claim amendment and another action had to be sent considering the amendment
- In this Action, Examiner Subramanian and SPE Kyle make up the law out of thin air—there is no form paragraph or other justification for "objections" they raised here (see section IV B. below)
- Examiner Subramanian fails to follow MPEP instructions for examination—sometimes through passive silence, and in the Advisory Action of July 20, 2012, with a rather blunt statement that he will provide no more insight into his unexplained positions.<sup>5</sup> He simply says the examiner disagrees and reread what he said before (to which the Applicants had supplied a response).
- When Applicant petitioned a premature final rejection, the Petition was granted in part by the T.C. Director—but on the same day, Examiner Subramanian sent another Action, effectively denying much of the opportunity to prosecute the application that was appurtenant to the right petitioned.<sup>6</sup>
- In an Interview on May 30, 2008 summarized in an Interview Summary filed June 10, 2008, paragraph 4, Examiner Subramanian stated that there was a Section 101 panel that meets just regarding business method patents, he could not give me the names of the panel members, he said that examiners can not allow claims without the approval of the

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<sup>3</sup> There is a curious pattern to the Petition decisions in T.C. 3600. T.C. Director Coggins almost never grants a Petition directed to an issue involving supervision of an examiner's compliance with procedural regulations. Instead, when a Petition is well-founded, somehow the examiner "magically" complies with the requested action, and T.C. Director Coggins later dismisses the Petition as "moot" or otherwise works with the examiner behind the scenes to ensure that no Petition decision ever sets forth standards for examiner conduct. (See Petition Decision of March 30, 2010; Decision of May 26, 2011). This deprives the public a set of petition decisions setting forth the PTO's norms.

<sup>4</sup> Compare MPEP § 704.01 (examiner should do no further search when—on the facts as the Examiner concedes them to be—an application is in the condition of this one) *with* Advisory Action of May 5, 2009, ¶ 11, line 10 (Examiner overrules MPEP § 704.01 by asserting his personal opinion of "proper examination procedure").

<sup>5</sup> Failure to answer all material traversed is a long-standing pattern in this Art Unit, 3695. For example, in 2005 and 2006, the second and third Actions failed to answer material traversed. After a reassignment to a second examiner, almost all claims were immediately allowed over the art. Several years' delay arose simply because the first examiner failed to consider the claim language, and failed to answer all material traversed.

<sup>6</sup> Decision on Petition of May 26, 2011; Office Action of May 26, 2011.

panel and that examiners are required to consult the panel and get approval to allow claims and Examiners are required to follow the decision of the panel. He said the requirement to consult the 101 panel before allowance was set forth in a directive sent to the examiners and issued by Director Wynn Coggins. I asked for a copy of the directive, and he said it was an internal procedure and that he did not have the authority to show it to an attorney. I asked if there were other panels, and he said there were and that he may have given me too much information. In an Interview on June 4, 2008 summarized in an Interview Summary filed June 10, 2008, paragraphs 6, 8; SPE Kalinowski explained that there was a 101 expert panel for business methods which was composed of two SPEs and a Business Method Specialist. The Business Method Specialist is not an examiner but is a former examiner and called a Technical Quality Assurance Specialist. I asked for a copy of the Coggins directive and Examiner Kalinowski said he did not know what directive Examiner Subramanian was referring to.

- Secretive panels of the un-named and unaccountable real decision makers (a shadow government, that reduce the examiners to puppets) and secretive written directives that attorneys are not allowed to see are not consistent with traditional notions of fairplay and due process, the Administrative Procedures Act or the patent laws, rules and MPEP regarding the role and function of examiners.
- As set forth more below, Examiners Subramanian and Kyle articulated in an interview September 5, 2012, a new rationale for the rejection of claim 197 under 35 U.S.C. 112, first paragraph, for lack of written description, that was not stated in the rejections of May 26, 2011 or March 14, 2012. One would have had to read the examiners' minds to have known that the reasoning for the rejection was as stated in the interview. Nevertheless, they refused to withdraw finality or send a new office action setting forth the rationale. They also refused to tell the undersigned if that rationale was the rationale, and only rationale, for all other claims rejected under 35 U.S.C. 112, first paragraph, for lack of written description. They also refused to put the rationale in writing knowing that if it was in writing it would constitute a new ground of rejection and require that premature finality be withdrawn and sacrifice production counts.

Some of the delay, abuse and obstruction appears to have been actively coordinated by the T.C. Director Coggins and obstruction and delay appears to be under coordination of examination management.

Applicant requests examination of the application pursuant to the PTO's published guidance. Applicant respectfully urges the Examiners to stop making up new rules and law on the fly, to stop skirting requirements for efficient examination procedure set forth in the MPEP, and to stop creating excuses for not following the written procedures in the MPEP. Applicant has repeatedly drawn attention to instructions from the Director of the PTO. Examiner Subramanian insists in his authority to not follow (or overrule) the Director's written instructions. Examiner Subramanian elevates his personal opinion over the MPEP, insisting that his idea of "proper examination procedure" prevails even when his opinion is 180° opposite to

the MPEP. That is not proper examination but rather abuse of power and insubordination to the rule of law and chain of command.

This attorney cannot allow the client's rights to be sacrificed to mere Examiner opinion. Thus, when previous examiners or Examiner Subramanian expressed views of facts or law that are flatly not true or accurate, Applicant had to leave certain claims unaltered for various legal reasons, but nonetheless added new claims to accommodate the examiners' views. When Examiner Subramanian insists that he need not follow the predictable patent examination procedure as set forth in the MPEP, this attorney has been forced to pursue several procedural avenues simultaneously, one directed to pursuing rights guaranteed to applicants by law, and a parallel track to accommodate the Examiner's personal-but-unauthorized views. Thus, because of discrepancies between the Examiner and the MPEP, the status and procedure of this application has become absurdly complex.

Applicant has put forward a best effort to advance the application forward within the bounds of the law. This has been met by resistance at every turn by the Office. The Examiner refuses to engage with claim language, refuses to answer all material traversed, refuses to follow clear and mandatory MPEP directives.

This application has now been pending for *twelve years*. The Applicant has been abused by the PTO for *twelve years*. The PTO has used every conceivable tactic to avoid granting a patent on an invention it regards as a directed to a business method. It is long past time to get a first Action that genuinely considers the merits under the law, instead of under personal preferences that exist nowhere in writing.

## **II. The Action is prematurely final because it raises new grounds of rejection not necessitated by amendment**

### **A. Rejection under 35 U.S.C. 112, second paragraph**

Paragraph 8 of the Action of March 14, 2012 reads as follows:

8. Claims 1-27, 31-52, 56-181 and 183-205 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

...

Independent claims 1, 2, 31, 56, 60, 74, 93, 102, 119, 130, 179, and 180 recite the limitation "computing data in a non-transitory memory of a computer, the computation in

furtherance of a (specific) lease". Firstly it is not clear as to how data is computed in a nontransitory memory of a computer. Memory of a computer is used for storing data and not for computing. The process of computing data in a non-transitory memory of a computer has not been described in the original specification and hence it unclear as to how this is performed.

The language "processing data in a non-transitory memory" or "computing data in a non-transitory memory" was in the claims at the time of the previous Action (May 26, 2011), yet the Action of May 26, 2011 raised no such rejection on these grounds. Raising it now in the March 2012 Action, without amendment, is a "new ground of rejection not necessitated by amendment."

Further, the March 14, 2012 rejection of this language is a "Bait and Switch" rejection. The language was in claims and not rejected for these reasons in the May 26, 2011 Action. For example, claims 1 and 2 had the language "processing data in a nontransitory memory of a computer" and was not rejected under 35 U.S.C. 112, second paragraph, in the May 26, 2012 Office Action for the reason that memory of a computer is used for storing data and not computing. Therefore, Applicant had every reason to think that the Examiner approved the language. Then, the Applicant added the language to other claims and repeated the language in claims 1 and 2. At that point, the examiner rejected the claims as indefinite for the strained interpretation of using memory to compute rather than store data. Further, the Examiner made the rejection final (March 14, 2012), as if the new rejection was necessitated by amendment. The rejection comes down to rejecting the specific phrase for the stated reasons for the first time in a final rejection.

This is entirely just. Additionally, the notion that the language "computing data in a nontransitory memory" is indefinite is not correct. Essentially all computation occurs on data stored "in" a memory. The claims need not be amended to say "stored in" a memory, as the claims are just as clear with or without the word "stored". The claims are consistent with everyday usage of language. Everyone knows the computing does not take place in the memory but that the data is in the memory (or stored in the memory). Throwing up picky or silly grounds of rejection late in prosecution is precisely the kind of examiner misconduct that the non-final rejection rules are designed to curtail.

**B. Rejections under 35 U.S.C. 112, first paragraph, written description, particularly Claim 197**

Examiners Subramanian and Kyle articulated in an interview on September 5, 2012, (Interview Summary filed September 6, 2012) a new rationale for the rejection of claim 197 under 35 U.S.C. 112, first paragraph, for lack of written description. This rationale is that the claim was rejected for the reason, and only the reason, that the specification allegedly does not show the computer performing the numerous steps recited but that the individual phrases are supported by the specification. Hence the block quote of all the claim language. That rationale was not stated in the rejections of May 26, 2011 or March 14, 2012. It was first articulated in an interview at Applicant's request about a week before the six month statutory period for the present action designated final was due to expire. One would have had to read the examiners' minds to have known that the reasoning for the rejection was as stated in the interview. The undersigned had no notice of that rationale and submitted 7 pages of argument regarding particular claim phrases in the papers filed November 28, 2011.

Nevertheless, the Examiners refused to withdraw finality or send a new office action setting forth the rationale. The rationale should have been expressly written in the rejection of May 26, 2011. Otherwise, it should have been stated in the March 14, 2012 Office Action which could not have been made final since the rationale was not in the May 26, 2011 Action.

As it stands the Applicant is under final rejection based on a rationale he had no real notice of until last week.

Worst yet, the Examiners also refused to tell the undersigned if that rationale was the rationale, and the only rationale, for all other claims rejected under 35 U.S.C. 112, first paragraph, for lack of written description. Thus, the Applicant still does not know the rationale for rejecting those claims and has to try to respond to all possibilities.

The Examiners also refused to put the rationale in writing knowing that if it was in writing it would constitute a new ground of rejection and require that premature finality be withdrawn and sacrifice production counts. This amounts to "pulling a fast one" over on the Applicant. The Examiners should not be permitted to do this and should be required to put the reason in writing so the Applicant has opportunity to respond before the case is final. The



Examiners should be required to say which claims the rationale applies to in order to remove ambiguity regarding the rejections. The rejection is a “hide the ball” rejection.

**C. Rejections under 35 U.S.C. 112, first paragraph, written description, “true lease”**

The March 14, 2012 Action at paragraph 13 was the first time *any* meaningful explanation was given to support any rejection relating to “true lease for tax purposes.” There was *no explanation at all* in the Action of May 2011, in violation of MPEP § 2163.04 (“Burden on the Examiner with Regard to the Written Description Requirement”). Any “additional explanation” is a new ground of rejection, even if offered in response to an appellant’s argument.<sup>7</sup> The new explanation at paragraph 13 is a “new ground of rejection not necessitated by amendment” which renders finality premature.

It is respectfully requested that finality be withdrawn.

**III. Because of Examiner refusal to observe MPEP § 710.06, NO action is properly pending, let alone a final Action**

On June 14, 2012, Applicant filed a paper requesting a replacement Action pursuant to MPEP § 710.06. The relevant language of MPEP § 710.06 reads as follows—note that the language is mandatory, not discretionary:

**710.06 Situations When Reply Period Is Reset or Restarted**

Where the citation of a reference is incorrect or an Office action contains some other error that affects applicant's ability to reply to the Office action and this error is called to the attention of the Office within 1 month of the mail date of the action, the Office will restart the previously set period for reply to run from the date the error is corrected, if requested to do so by applicant. If the error is brought to the attention of the Office within the period for reply set in the Office action but more than 1 month after the date of the Office action, the Office will set a new period for reply, if requested to do so by the

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<sup>7</sup> *In re Leithem*, 661 F.3d 1316, 1321, 100 USPQ2d 1155, 1160 (Fed. Cir. 2011) (“When the Board affirmed the rejection on [a different basis], of course Leithem’s argument had to shift—the thrust of the Board’s rejection had shifted. The Board cannot play it so fast and loose in affirming an examiner’s rejection that it disregards procedural safeguards afforded to the applicant.”); *In re DeBlauwe*, 736 F.2d 699, 705–06, 222 USPQ 191, 196–97 (Fed. Cir. 1984) (when an applicant has argued a point, the examiner and Board are obligated to respond to those arguments, and their new response requires giving an applicant a new opportunity to respond).

applicant, to substantially equal the time remaining in the reply period. ... The new period for reply must be at least 1 month and would run from the date the error is corrected. ...

...

A supplementary action after a rejection explaining the references more explicitly or giving the reasons more fully, even though no further references are cited, establishes a new date from which the statutory period runs.

Examiners Subramanian and Kyle state squarely in a paper of July 20, 2012 that they refuse to implement a direct instruction from the PTO. They identify no basis to believe that MPEP § 710.06 does not apply, and no authority to overrule it. They simply refuse to follow it.

The law is clear: where an agency procedural manual states a regulation that runs in favor of the public and an agency employee departs from that manual, the employee's action taken in violation of "applicable departmental regulations" is "illegal and of no effect." *Vitarelli v. Seaton*, 359 U.S. 535, 545 (1959); *Service v. Dulles*, 354 U.S. 363, 388-89 (1957) (vacating agency action issued in violation of guidelines stated in an unpublished agency manual); *Reuters v. F.C.C.*, 781 F.2d 946, 950-51 (D.C. Cir. 1986) ("Ad hoc departures from [an agency's] rules, even to achieve laudable aims, cannot be sanctioned").

Here, the MPEP makes clear in § 2163.04 that an Action must provide some explanation for a "written description" rejection or objection, so that the precise nature of the issue can be identified, and an applicant has an opportunity to respond precisely. It is undisputed that the May 26, 2011 and March 14, 2012 Actions omit these showings. It is likewise undisputed that this omission is a procedural "error that affects applicant's ability to reply." Applicant's papers filed November 28, 2011 included 7 pages of discussion with citation to the specification and drawings regarding support for claim language in the specification in response to rejection under 35 USC 112, first paragraph for lack of written description. The Examiner failed to address those arguments as required by MPEP § 2163.04.

MPEP § 2163.04 requires an Examiner to "fully respond to applicant's rebuttal arguments" if a rejection is maintained. The Examiner just repeated the rejections without any indication of why Applicant's arguments were not regarded as persuasive. Further, MPEP § 707.07(f) requires an Examiner to answer all material traversed. The Advisory Action of July 20, 2012 gives no reason to distinguish MPEP § 710.06; MPEP § 2163.04, and MPEP § 707.07(f).

The Advisory Action simply ignores the MPEP and Applicant's arguments. Examiners do not have discretion to simply ignore instructions in the MPEP.

Because of the Examiner's and SPE's refusal to follow MPEP §§ 710.06, 2163.04, and 707.07(f), no Action is currently properly pending. The actual current stage of prosecution is that a proper and complete Action is due from the Examiner.

**A. The Action reflects bad faith examination: despite repeated requests, the Examiner refuses to make the showings required under MPEP § 2163.04, and refuses to answer all material traversed under MPEP § 707.07(f)**

The last several Actions (October 2008, February 2010, May 2011) have raised issues nominally under 35 U.S.C. § 112, first paragraph, but consistently without using the MPEP form paragraphs, and without making the showings required by the various "Burden on the Examiner" provisions of MPEP § 2163.04 ("burden on the examiner" under the written description requirement), MPEP § 2164.04 ("burden on the examiner" under the enablement requirement), or MPEP § 2165.03 (requirements for rejection under best mode requirement). Instead, each Action merely sets forth a catalog of claim phrases, and states that they are "not supported." Huge portions of claim language a block quoted and said to lack support.

In Reply after Reply, Applicant has pointed to the relevant MPEP sections and asked for appropriate showings. In paper after paper, Examiners Subramanian and Kyle refuse to follow MPEP instructions, and refuse to address the arguments. Most of Applicants' arguments are ignored (for example, the Action of May 26, 2011 responded to eleven pages of arguments by Applicant with a "Response to Arguments" of two lines).

Honest people make honest mistakes. But a four-fold repetition of the same mistake is not readily explicable as the product of honest, good faith examination. The most-apparent explanation is the count system: by designating this Action final, Examiner Subramanian hopes to be awarded an examination count sooner. even if this Action does not reflect a *bona fide* effort to advance prosecution.

If there is any explanation for the March 14, 2012 Action that is consistent with good faith examination, Applicant requests it. In absence of an explanation, Applicant notes that the March 14, 2012 Action is too incomplete and haphazard to usefully advance prosecution, and it

is too incomplete to mature into a final Action. Applicant requests a good faith, complete, MPEP-compliant Action, or an allowance.

**B. The Examiner's refusal to answer all material traversed is obstruction, not examination**

In two prior Replies, Applicant directed the Examiner's attention to a memo from Director Kappos, *Subject Matter Eligibility of Computer Readable Media*, 1351 O.G. 212 (Jan 26, 2010), and attached a copy as an Exhibit to the reply of November 28, 2011. This memo instructs:

"Such an amendment [to add the language "non-transitory memory"] would typically not raise the issue of new matter, even when the specification is silent" (with exceptions that do not apply here).

Examiner Subramanian has offered no basis to disagree with Director Kappos; he instead simply refuses to follow his instructions.

On another issue, Examiner Subramanian has stated that he regards instructions from the PTO as "not ... in keeping with proper examination procedure."<sup>8</sup> Does the Examiner have a similar view here, that MPEP § 2163.04 and the *Subject Matter Eligibility* memo are "not proper examination procedure?" Applicant requests that Examiners Subramanian and Kyle either explain their disagreement with Director Kappos, or follow his instructions. Silent defiance is not helpful in advancing prosecution.

**IV. The Action relies on pure examiner fabricated rules of law, and cannot be the product of good faith examination**

**A. The Action fabricates law: a so-called rule of law relating to "descriptive material" that exists nowhere in the law**

In Action after Action, Examiner Subramanian and Kyle rely on a "descriptive material" exclusion for claim language under 35 U.S.C. § 103. Examiners Subramanian and Kyle use no form paragraph. Rather, these Actions rely on examiner-improvised legal analysis that cites *In re Ngai*, 367 F.3d 1336, 1339 (Fed. Cir. 2004); *In re Lowry*, 32 F.3d 1579, 1583-84 (Fed. Cir. 1994) and *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983).

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<sup>8</sup> See footnote 4.

In Reply after Reply, this Applicant has block-quoted the language from *Lowry*, holding that there is no broad “descriptive matter” exclusion, only a narrow “printed matter” exclusion applicable only to “arrangements of printed lines or characters, useful and intelligible only to the human mind.” Examiners Subramanian and Kyle make no answer in the “Response to Comments.” The Examiners are simply dead silent.

Applicant attaches *Ngai*, *Gulack*, and *Lowry* to this paper for convenience. The word “descriptive” is absent.

The Examiners should either identify a document having force of law that sets forth any alleged “descriptive material” rule or withdraw the rejections. The Examiners’ repeated failure to do so up to now has been simple obstruction; if the Examiners fails to do so now, Applicant will have no choice but to seek relief reflecting intentional bad faith.

**B. The Action fabricates new law out of thin air: so-called “objections” to the specification**

From page 2 to page 11, the March 14, 2012 Action raises a number of “objections” to the specification “under § 112, first paragraph, as failing to support the subject matter set forth in the claims:”

3. The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to support the subject matter set forth in the claims. The specification, as originally filed does not provide support for the invention as now claimed.

The test to be applied under the written description portion of 35 U.S.C. § 112, first paragraph, is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of later claimed subject matter. *Vas-Cat, Inc. v. Mahurkar*, 935 F. 2d 1555, 1565, 19 USPQ2d 111, 1118 (Fed. Cir. 1991), reh'rg denied (Fed. Cir. July 8, 1991) and reh'rg, en banc, denied (Fed. Cir. July 29, 1991).

This is not consistent with present law. There is no such law. 35 U.S.C. § 112, first paragraph applies to *claims*, not to the *specification*. There is no relevant form paragraph in the current version of the MPEP.

By making up new law or relying on old discredited practices, the Action doubles the PTO's review obligation: the "objection to the specification" is not appealable and must be petitioned, while the rejections must be appealed. The "single most likely inference"<sup>1</sup> is that this "objection" was fabricated to interpose delay and multiply proceedings and increase legal fees.

Examiners Subramanian and SPE Kyle (SPE Kyle was reassigned as the examiner in charge of this case in the March 14, 2012 Action) simply made up the law out of thin air. This is not examination, it is obstruction. To the extent it is interposed simply to extract counts from the PTO and RCE fees from Applicant and increase legal fees, it is misuse of process.

## **V. Rejection under 35 U.S.C. § 101**

The Action gives a cursory discussion of claims 1-27, 31-52, 56-180, and 183-205. In relevant part, sample independent claims read as follows:

1. A method, comprising the steps of:  
processing data in a non-transitory memory of a computer,...  
computing data in a non-transitory memory of a computer, ...  
processing data in a non-transitory memory of a computer, the computation reflecting receipt of
2. A method, comprising the steps of:  
computing data in a non-transitory memory of a computer, the computation ...  
the data processed in the non-transitory memory representing one or more of a group consisting of ....
31. A method, comprising the steps of:  
computing data in a non-transitory memory of a computer, the computation ...
56. A method, comprising the steps of:  
computing data in a non-transitory memory of a computer, the computation ...
60. A method, comprising the steps of:  
computing data in a non-transitory memory of a computer, the computation...
74. A method, comprising the steps of:  
computing data in a non-transitory memory of a computer, the computation ...

Why is “Computing in a non-transitory memory” not within the scope of 35 U.S.C. § 101? If Examiners Subramanian and Kyle disagree with Director Kappos’ *Subject Matter* memo, or consider it inapplicable, Applicant requests an explanation.

## **VI. Responsive Arguments to Particular Rejections**

Applicant now reiterates many of the arguments presented in prosecution thus far, which have never been addressed nor answered by the Examiners to avoid any allegation that this is not a complete response. Applicant responds as much as is possible given an incomplete Action and uncertain grounds of rejection under 35 U.S.C. 112, first paragraph, for lack of written disclosure. Since the Examiners will not write down their rationale for rejecting claim 197 or tell the Applicant if that is the rationale, and only rationale, for rejecting other claims under 35 U.S.C. 112, first paragraph for lack of written description, the rationale seems to be subject to change at the Examiner’s will.

## **VII. Formalities**

Claims 1-205 are pending. Claims 1, 2, 28, 31, 53, 56, 60, 74, 93, 102, 119, 130, 133, 140, 148, 154, 158, 161, 172, 181, 182, 183, 193 and 197 are independent. Claims 130, 133, 148, 154, 158, 161, 172, 180, and 183 are amended to place a coma “,” before the words “data processed” or “the processed data” or “the computing data”. The amendments are minor and raise no new issues and should be entered to place the case in better condition for appeal.

The Specification is objected to under 35 U.S.C. §112, first paragraph, as failing to provide support for claims 1, 2, 28, 35, 57, 95, 114, 120, 122, 143, 170, 175, 198, 31, 102, 56, 60, 74, 93, 119, 126, 127, 128, 129, 130, 133, 140, 148, 154, 158, 161, 172, 179, 180, 181, 182, 183, 193, and 197. Claims 1-52 and 56-205 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claim 1 stands rejected under 35 U.S.C. §112, second paragraph, as being incomplete for failing to recite essential steps relating processing data and computing data. Claims 1-27, 31-52, and 56-181 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-27,

31-52, and 56-180, and 183-205 stand rejected under 35 U.S.C. §101 as directed to non-statutory subject matter for being drawn to an abstract idea. Claims 28-30, 53-55, and 181-203 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Weatherly et al., U.S. Patent No. 6,049,784.

**A. Specification**

The specification is objected to under 35 U.S.C. §112, first paragraph, as failing to support the subject matter set forth in the claims.

As set forth above, an objection to the specification is improper. 35 U.S.C. § 112, first paragraph applies to *claims*, not to the *specification*. There is no relevant form paragraph in the current version of the MPEP.

**1. “true lease”**

The claim language found unsupported is essentially the limitation “a true lease under tax accounting rules” which was added by the amendment of November 3, 2010. That paper said on page 47:

Claims have been amended to recite “an operating lease under financial accounting rules or a true lease under tax accounting rules”. This language is supported at, for example, paragraphs [0018], [0021], [0029], [0072], and [0082] (paragraph number references are to the Substitute Specification filed September 29, 2005).

The language of paragraph [0072] of the specification referenced reads as follows (original specification of July 2000, page 15 line 30 to page 16, line 3):

.... In contrast, lease 100 may be structured so that the lease of tenant improvements from special purpose entity 110 to tenant 102 meets Internal Revenue Code standards for a tax lease; this will render the rent 124 paid from tenant 102 to special purpose entity 110 deductible as an ordinary business expense. This may convert the deduction schedule from thirty-nine years to depreciate the tenant improvements (when tenant 102 is the tax owner of the tenant improvements) into a shorter schedule based on the term 122 of lease 100.

The Office Action does not reflect that any consideration was given to this language which clearly states a “tax lease,” i.e. a true lease under tax accounting rules as mentioned.



The Office Action provides no analysis of why the Patent Office takes the position that the cited paragraphs fail to provide support for the claim language. Such failure does not advance prosecution.

With respect to a “written description” issue, MPEP § 2163(III)(A) and § 2163.04 required that the Action “Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed ” The Action did not do so. Until the rejection in the Action is clear, Applicant is left without a fair opportunity to respond.

Because the Office Action does not make the showings required for the “written description” requirement, disregards the MPEP, disregards Applicant’s previous paper, and disregards the specification, it is not clear what the issue is, and therefore it is impossible to respond more precisely. Thus, the objection is improper. The language is supported as set forth above.

The term “true lease” is an established term of art, having a meaning<sup>9</sup> consistent with the use at the portions of the specification designated in the filed papers of November 2011. (Paragraphs [0018], [0021], [0029], [0072], and [0082] (paragraph number references are to the Substitute Specification filed September 29, 2005)). The Action does not explain how a term of

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<sup>9</sup> Investopedia, <http://www.investopedia.com/terms/t/true-lease.asp> explains:

Definition of 'True Lease'

A specific type of multi-year lease which does not pass on ownership rights of the asset to the lessee. A true lease is an arrangement where the lessor (the person granting the lease) bears both the risks and rewards of ownership of the property. The lessee merely gets to use the property in a rental fashion.

Business Dictionary, <http://www.businessdictionary.com/definition/true-lease.html>

true lease

Multi-year lease arrangement in which the risks and rewards of ownership are retained by the owner (the lessor) of the leased asset or property, whereas the tenant or lessee retains its possession and use for the lease period. The lessor claims the depreciation benefits and the lessee claims the lease payments as capital expense. Called 'true' because they pass the accounting requirements for the lessor to claim the tax benefits, such leases offer comparatively lower lease payment or rent. An operating lease is a true lease whereas a capital lease is not. Also called tax lease or tax oriented lease.

art that is used in the sense explained in the specification can lack “written description” support. Without that explanation, Applicant is unable to know what kind of reply is warranted: simple argument, a dictionary, a declaration, or some other reply? This argument applies to claims 1, 2, 28, 35, 57, 95, 120, 122, 143, 170, 175, 198, 60, 133, 148, 179, 180, 181, 183, and 193.

**2. “at least some portion of the lease being or having been performed by processing data in a non-transitory memory of a computer” and “non-transitory memory”**

Additional claim language found unsupported is essentially the limitation “at least some portion of the lease being or having been performed by processing data in a non-transitory memory of a computer.” This language was previously amended from “at least some portion of the lease being or having been performed with assistance of a computer processing data in a tangible memory of a computer.” By amendment the language has been deleted and instead the claims recite “computing data in a non-transitory memory of a computer, the computation in furtherance of an improvements lease, the improvements lease being a lease of improvements” (for Claim 2) or similar language. It is believed the amended language overcomes any indefiniteness. The support for the language is the same as for the previous language.

The issue of support in the specification for the previous language was fully addressed previously in the Amendment and Reply to Office Action or in the Alternative Appeal Brief filed November 5, 2009 at pages 20-21:

All issues currently on appeal focus on the various “computer” provisions of the claims. Claim 119 includes language that is common to claims 1, 2, 31, 56, 60, 74, 93, 102, 119, 130, 133, 140, 148, 154, 158, 161, 172, 179, 180, and 181.<sup>10</sup>

119. A method, comprising the steps of:

...

at least some portion at least some portion of the lease being or having been performed with assistance of computer processing of data in a tangible memory, the data representing one or more of a group consisting of the landlord, the tenant, or a loan purchaser

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<sup>10</sup> Claim 119 is used as an example here, because it includes language sufficient to represent all issues likely to arise in consideration of all claims. (Footnote numbering changed.)

The computer processing is discussed in the Substitute Specification filed on [September 29, 2005 and received] October 3, 2005, at pages 22-30. The specification explicitly discusses a variety of computers and servers. All computers and servers in modern commercial use inherently have “tangible memories.” Pages 22-30 of the specification discuss processing of data relating to landlords, tenants, loan purchasers, and the other kinds of objects discussed in the respective claims. (Bracketed information added).

Though the language “with assistance of a computer” and “at least some portion of the improvements lease being or having been performed by processing data in a non-transitory memory of a computer” has been eliminated and the term “tangible” has been replaced by “non-transitory,” the same arguments apply. All computers and servers in modern commercial use inherently have “non-transitory memories.” The Office Action provides no analysis of why the Patent Office takes the position that the cited paragraphs fail to provide support for the claim language. Such failure does not advance prosecution. Thus, the objection is improper. The language is supported. The language is supported as set forth above. This argument applies to claims 1, 2, 31, 102, 56, 60, 74, 93, 119, 126, 127, 128, 129, 130, 133, 140, 148, 154, 158, 161, 172, 179, 180, 181, 182, 183, 193 and 197 (taken in the order of the Office Action).

The law regarding written support simply requires that the specification conveys to one of ordinary skill that the inventor had possession of the subject matter. It does not require the specification to recite the claim language verbatim.

**3. “a primary investor, secondary investor, or lender, who contributed capital to the asset or to an entity owning the asset”**

The Action questions “support” under the “written description” requirement for the language “a primary investor, secondary investor, or lender, who contributed capital to the asset or to an entity owning the asset.” The language regarding a primary investor and a secondary investor has been changed to “investor(s)”. This language is supported by the specification as originally filed at least by Figs. 2A and 2B which show numerous investors.

This language “lender, who contributed capital to the asset or to an entity owning the asset” is supported as follows:

Fig. 2C shows lenders. The specification at paragraph [0087] and after (publication paragraph nos.) discloses a computer implementation of the lease structure of Fig. 1. Fig. 2C shows Data Warehouse 500 and Loan Analysis Module 510 which are discussed at paragraphs [0111] and after. Fig. 4A shows a computer screen with numerous loans giving landlords, tenants, lease amount etc. Paragraph [0121] states, “By simply double clicking on an individual loan, the user can retrieve additional background and performance data on a specific loan.” One of ordinary skill in the art would understand that the additional background includes the information shown in Fig. 1 for the lease structure and identities of parties. Fig. 1A at the bottom under Capitalization reference is made to the percentage of participation.

- “lender” – Fig. 3C shows financing institutions and Polestar.
- “who contributed capital to the asset” – inherent in disclosure at bottom of Fig. 1A where lessor is identified at least.
- “who contributed capital ... to an entity owning the asset” – inherent in capitalization participation of lessor.

This applies to claims 119, 130, 133, 183, and 197. The language is supported.

#### **4. “payment for the tenant improvements lease being “segregable from” payments for the space lease”**

Applicant previously noted support for this language as follows (Applicant’s paper of November 3, 2010, page 47:

The “segregable payments” of claims 183-203 are supported at, for example, Figs. 2A and 2B.

Again, the Office Action provides no analysis of why the Patent Office takes the position that the cited paragraphs fail to provide support for the claim language. Such failure does not advance prosecution.

With respect to a “written description” issue, MPEP § 2163(III)(A) and § 2163.04 required that the Action “Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in

possession of the invention as claimed ” The Action did not do so. Until the rejection in the Action is clear, Applicant is left without a fair opportunity to respond.

Because the Office Action does not make the showings required for the “written description” requirement, disregards the MPEP, disregards Applicant’s previous paper, and disregards the specification, it is not clear what the issue is, and therefore it is impossible to respond more precisely. Thus, the objection is improper. The language is supported as set forth above. This argument applies to claims 183-203.

**5. “leasing the shorter-lived asset” and “longer-lived asset”**

At the very least the Summary of the Invention at paragraph [0003] discloses the longer-lived asset and shorter-lived asset terminology.

This argument applies to claims 60 and 193. The language is supported.

**6. “displaying data on a non-transitory display”**

Figs. 3a-3e, 4a-4c and 5a-5e disclose computer screens displaying data. Accompanying text further discloses displaying data.

This argument applies to claims 126, 127 and 129. The language is supported.

**7. “a solicitation to enter the improvements lease”**

Paragraphs [0088] and [0090] to [0100] disclose origination.

This argument applies to claim 126. The language is supported.

**8. “a non-transitory network”**

Paragraphs [0088] and [0089] disclose computer access networks and a website.

This argument applies to claims 126, 127, 128, and 129. The language is supported.

**9. “managing or servicing the improvements lease” or “soliciting, originating, managing, or analyzing the improvements lease”**

Paragraph [0088] discloses originating, managing, and analyzing tenant improvement leases. Paragraphs [0090] to [0100] specifically disclose origination.

This argument applies to claims 127 and 180. The language is supported.

**10. data representing “a dollar amount of a transaction” and “a loan purchaser”**

The specification at paragraph [0087] and after (publication paragraph nos.) discloses a computer implementation of the lease structure of Fig. 1. Fig. 2C shows a computer system. Fig. 2C shows Data Warehouse 500 and Loan Analysis Module 510 which are discussed at paragraphs [0111] and after. Paragraph [0114] states, “Data received from Loan Exchange 300 may include ... transaction dollar amounts ... loan purchaser names, among other data elements.” The Loan Exchange is shown in Fig. 2C and discussed in paragraphs [0101] to [0110] with mention of “buyers” of loans at paragraph [0102] at least. Though supported, the terminology “loan purchaser” has been changed for reasons of preference. The claims now recite “an investor or lender”. This language is supported by the specification as originally filed at least by Figs. 2A and 2B which show numerous investors. Fig. 2C shows lenders.

This argument applies to claims 130, 140, 148, 154, 158, 161 and 172. The language is supported.

**11. “hardware and software” and “computer programs”**

The specification at paragraph [0087] and after (publication paragraph nos.) discloses a computer implementation of the lease structure of Fig. 1. Fig. 2C shows a computer system.

This argument applies to claims 181 and, 182. The language is supported.

**12. Other language in Whole sale identification of claim language**

It is believed that any other language identified in the Office Action by whole sale underlining of whole claims or large paragraphs from claims is clearly supported by the original specification with reference to the computer implementation and lease structure cited above. Additional language to a space lease and improvements lease distinct from the space lease and structured to support an accounting conclusion that they are to be considered as a single lease and classified as an operating lease is supported at least by paragraph [0001] for easy confirmation. Additional language to a special purpose entity; rent payments tax deductible to the tenant; a debt that is non-recourse against the SPE, landlord and improvements are supported numerous times in the specification and original claims and by at least the first paragraphs of the Summary of the Invention for quick confirmation. Language to reflecting paying or receiving payments on a lease [0119] (“receive current loan performance data”), and financing obtained at

tenant's cost of funds [0072] is at least supported at the paragraphs of the publication identified here.

This argument applies to claims 181, 182, 183, 193 and 197. The language is supported.

### **13. Computer implementation of claimed steps**

With respect to claim 197, during an interview on September 5, 2012, (Interview Summary filed September 6, 2012), Examiners Subramanian and Kyle articulated a new rationale for the rejection of claim 197 under 35 U.S.C. 112, first paragraph, for lack of written description. This rationale is that the claim was rejected for the reason, and only the reason, that the specification allegedly does not show the computer performing the numerous steps recited but that the individual phrases themselves are supported by the specification.

The computer processing is discussed in the Substitute Specification filed on [September 29, 2005 and received] October 3, 2005, at pages 22-30. The specification explicitly discusses a variety of computers and servers. Pages 22-30 of the specification discuss processing of data. The specification at paragraph [0087] and after (publication paragraph nos.) discloses a computer implementation of the lease structure of Fig. 1. Fig. 2C shows Data Warehouse 500 and Loan Analysis Module 510 which are discussed at paragraphs [0111] and after. Fig. 4A shows a computer screen with data. Figs. 3a-3e, 4a-4c and 5a-5e disclose computer screens displaying data. Accompanying text further discloses displaying data. Thus, the specification discloses computer implementation of the steps of claim 197.

It is clear from the specification as originally filed that the Applicant was in possession of the subject matter of implementing the disclosed and claimed steps by a computer. It has been understood all along during the prosecution of this application from the originally filed specification that the system disclosed is a computer implementation and that the steps employ a computer and are not done by hand with paper and a pencil or in someone's mind. The claims have been crafted to make the computer implementation clear and to exclude performing the steps by hand or in a person's mind.

With respect to the claims rejected under 35 U.S.C. 112, first paragraph for lack of written description, the March 14, 2012 Action gives no indication what the problem is. For claim 197, an explanation that the problem is seen as the support for a computer implementation

of the steps not the specific phrases in the steps, came in an interview and the Examiners refused to put it in writing. The undersigned questions if the refusal to put the rationale in writing was so that the Examiners can rely on other rationales later and keep the rejection a moving target.

With respect to other claims the reason for the rejection is not known. Is the perceived problem the individual terms? Phrases? The interconnections? Is each paragraph of the Action directed to a single issue, or multiple issues? The Action block quotes large sections of claim language without identifying where the alleged problem is. If the Action had set forth the showings required by MPEP § 2164.03, the issues would be clearly identified and some reply would be possible, but as is, the Action is no more than an invitation to read the examiner's mind. For a non-exhaustive list of examples, the following are too sketchy to permit any further reply:

At page 3, lines 17-20:

Claim 60 recites the limitation "computing data in a non-transitory memory of a computer, the computation in furtherance of two leases, the leases being a lease of leasing a longer-lived asset and a lease of a shorter-lived asset to a lessee under two separate leases" and "a true lease under tax accounting rules" (emphases added).

At page 4 lines 12-16:

Claim 126 recites the limitation "the portion of the lease performed by processing data in a non-transitory memory of a computer includes formatting or buffering messages for transmission to or received from a potential lessor or lessee on a non-transitory network, or displaying data on a non-transitory display, the data providing a solicitation to enter the improvements lease" (emphasis added).

At page 4, lines 17 to page 5 line 2:

Claim 127 recites the limitation "the portion of the improvements lease performed by processing data in a non-transitory memory of a computer includes formatting or buffering messages for transmission to or received from a potential lessor or lessee on a non-transitory network, or displaying data on a non-transitory display, or storing data in a non-transitory memory, the data containing terms of the improvements lease, the data being transmitted, displayed or stored on a computer of the lessor, lessee, or servicer under control of programs for managing or servicing the improvements lease" (emphasis added).



At page 10, lines 3-16:

Claim 193 recites the limitations "processing of data in a non-transitory memory of a computer, the processing reflecting paying or receiving a payment on a lease granting rights to use a shorter-lived asset to a lessee, the shorter-lived asset being functionally related to a longer-lived asset also leased to the lessee, financing or ownership of the shorter-lived asset being distinct from financing or ownership of the longer-lived asset, an amount of the payment payable by the lessee to a payee for the shorter-lived asset for lease of the shorter-lived asset being segregable from an amount payable by the lessee to a distinct payee for lease of the longer-lived asset, the segregation reflecting the distinct ownership or financing, the segregable payment stream directed to the shorter-lived asset having a present value at least equal to a cost of the shorter-lived asset at a time of commencement of the lease covering the shorter-lived asset; at least some portion of the lease to the shorter-lived asset being structured together with the lease to the longer-lived asset to support an accounting conclusion that the two leases are to be considered together as a single lease, classified as an operating lease under financial accounting rules or a true lease under tax accounting rules" (emphasis added).

Applicant has provided pages of arguments regarding phrases of claim language and Applicant is entitled to a written statement as to whether those arguments are persuasive with respect to all rejected claims they apply to in order to narrow issues.

Thus, it is respectfully submitted that all claim language is properly supported by the specification as originally filed.

**B. Rejection under 35 U.S.C. §112, First Paragraph**

Claims 1-52 and 56-205 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. As set forth above with respect to the objections to the specification, the claims are supported by the specification. The arguments set forth above with respect to the objections to the specification, apply also to the rejections of the claims. The specification conveys to one of ordinary skill that the inventor had possession of the subject matter claimed. Thus, the claims are supported and the rejections should be withdrawn.

The same applies to the dependent claims. The inability to determine the reasons for the objections to the specification applies to the claims as well.

**C. Rejection under 35 U.S.C. §112, Second Paragraph**

Claim 1 was rejected under 35 U.S.C. §112, second paragraph, as being incomplete for failing to recite essential steps relating processing data and computing data. No essential steps are omitted. The rejection seems to miss a major point of Applicant's invention that there is an improvements lease that is distinct from a space lease. There is a first step of processing data, the computation in furtherance of a space lease; and a second step of computing data, the computation in furtherance of an improvements lease. No steps are missing. As recited, the improvements lease is a lease of tenant improvements to the space. The improvements lease is recited as structured together with the space lease. Thus, all claim elements are recited as related. The rejection should be withdrawn.

Claims 1-27, 31-52, and 56-181 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Paragraph 8 of the Action of March 14, 2012 reads as follows:

Independent claims 1, 2, 31, 56, 60, 74, 93, 102, 119, 130, 179, and 180 recite the limitation "computing data in a non-transitory memory of a computer, the computation in furtherance of a (specific) lease". Firstly it is not clear as to how data is computed in a nontransitory memory of a computer. Memory of a computer is used for storing data and not for computing. The process of computing data in a non-transitory memory of a computer has not been described in the original specification and hence it unclear as to how this is performed.

Similar language is rejected in claims 133, 140, 148, 154, 158, 161, 172, 173, 183, 193, and 197. The language "processing data in a non-transitory memory" or "computing data in a non-transitory memory" is definite. Essentially all computation occurs on data stored "in" a memory. The claims need not be amended to say "stored in" a memory, as the claims are just as clear with or without the word "stored". The claims are consistent with everyday usage of language. Everyone knows the computing does not take place in the memory but that the data is in the memory (or stored in the memory). Throwing up picky or nonsense grounds of rejection late in prosecution is precisely the kind of examiner misconduct that the non-final rejection rules are designed to curtail.

Claim 197 (which is the claim the Examiners apparently regarded as supported by the specification but for the computer implementation issue) could be amended to explicitly recite “processing with a computer data stored in a non-transitory memory of a computer.” The suggestion is in order to see if the Examiner is agreeable to the language and will withdraw the Section 112, second paragraph rejection. Response is requested.

With respect to claim 1, Applicant submits that there is antecedent basis for the words “computation”. The antecedent basis is that there is inherently a computation from processing data and computing data.

With respect to claims 133, 140, 148, 154, 158, 161, 172, and 173, Applicant submits that the term “computing data” is not unclear. It is language that has an ordinary meaning and is not indefinite.

The following comments on the law regarding the issue of indefiniteness and the amended claim language are provided.

MPEP § 2173.02 states the general test under § 112 ¶ 2 (underline in original):<sup>11</sup>

#### **2173.02 Clarity and Precision**

The examiner’s focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. ... he or she should allow claims which

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<sup>11</sup> Applicant notes *Ex parte Miyazaki*, 89 USPQ2d 1207 (BPAI 2007) which suggested that the Federal Circuit’s “reasonableness” test that applies during examination (which is somewhat stricter than the “insolubly ambiguous” test that applies during litigation) be replaced with a new test improvised by the Board, “amenable to two or more plausible constructions.” The Board acted illegally, and *Miyazaki* is not the law. First, the interpretations of law set forth in the MPEP are binding on the Board; the Board had no authority to overrule the agency’s official interpretations. *Yale-New Haven Hospital v. Leavitt*, 470 F.3d 71, 80 (2nd Cir. 2006) (“An interpretative rule binds an agency’s employees, including its ALJs”); Richard J. Pierce, *ADMINISTRATIVE LAW*, Aspen Law & Business (4th Ed. 2002) § 6.4. If the Board wants to change the agency’s mind, then the Board must act through the proper procedural channels, and get its view adopted by the agency as a whole. Rogue panels of the Board may not act independent of the Director. Second, the PTO has no substantive rule-making authority, and the Board cannot act where the agency could not act by rule making. Third, the Federal Circuit has said that the standard that applies in the PTO is “reasonable,” *Credle v. Bond*, 25 F.3d 1566, 1576, 30 USPQ2d 1911, 1919 (Fed. Cir. 1994), and that under the law, the Board may “demand[ ] no more.” The Board does not have authority to overrule the Federal Circuit. Subsequent to *Miyazaki*, the Federal Circuit reiterated that “Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire,” *In re Skvorecz*, 580 F.3d 1262, \_\_\_, 92 USPQ2d 1020, 1025 (Fed. Cir. 2009), effectively overruling *Miyazaki*.

define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. Examiners ... should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement.

The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity.

#### **2173.04 Breadth Is Not Indefiniteness**

Breadth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. § 112, second paragraph.

All claims, including claims 1-27, 31-52, 56-59 and 74-181 meet the requirements of §112, 2<sup>nd</sup> paragraph and are definite.

#### **a) Claim 181: “what kind of assistance”**

The Action queries “in claim 181 it is not clear what kind of assistance is provided.” The claim is broad, not indefinite. The precise kind of assistance is irrelevant: if “assistance” exists, the assistance falls within the claim, and if there is no assistance from a computer, than the claim is not satisfied.

The Action queries “it is not clear what the term ‘assist a tenant in entering an improvements lease’ entails.” The metes and bounds are clear. The claim language is reasonably definite, though broad.

The Action queries “what is the structural cooperative relationship” between the hardware, software and memories. The structural relationship is the same as is typical of a programmed computer with memory. One of ordinary skill would understand this relationship and there is no indefiniteness.

The Action queries if the two memories are one and the same or different memories. They are recited as two memories but different segments of a memory module or chip may be defined as a “memory”. One of ordinary skill in the art would understand that a memory module or chip can be mapped to comprise two memories.

Claim 181 meets the requirements of Section 112, 2<sup>nd</sup> paragraph and is definite.

## 2. “true lease”

With respect to claims 28, 35, 57, 95, 114, 120, 122, 143, 170, 175, and 179-205, the Office Action rejects the language “true lease” as indefinite and states, “It is not clear what the Applicant means by the term ‘true lease.’”

The term “true lease” is a term known to those of ordinary skill in the art. A true lease under tax accounting rules is another term for a tax lease. The word “tax” in the term “tax lease” means tax accounting rules apply. Applicant has provided a dictionary definition. See footnote 9. The term “true lease under tax accounting rules” is definite and the rejection should be withdrawn.

All claims, including claims 28, 35, 57, 95, 114, 120, 122, 143, 170, 175, and 179-205 meet the requirements of §112, 2<sup>nd</sup> paragraph and are definite.

## VIII. Rejection Under 35 U.S.C. §101

Claims 1-27, 31-52, and 56-180, and 183-205 were rejected under 35 U.S.C. §101 as directed to non-statutory subject matter for being drawn to an abstract idea.

With respect to the rejection of claims 1-27, 31-52, 56-180 and 183-205 under 35 U.S.C. 101 as directed to non-statutory subject matter as drawn to an abstract idea for preemption, the Office Action states at page 15, lines , “the steps of ... do not have support in the original specification for machine implementation of these steps....” Thus, the rejection seems to be confusingly incorporating a written description requirement into a Section 101 analysis.

The Action seems to take the position that business method claims are not patentable. This position is not consistent with the law. The Supreme Court in the case *Bilski v. Kappos*, No. 08-964 (U.S. June 28, 2010) refused to categorically deny patent protection to business methods. Thus, business method claims are patentable subject matter.

The claims each recite methods, and specify that some part of the method requires processing or computing by a computer. A computer is indisputably a “machine.” Processing or computing in a machine is not “abstract.” The claims meet the “machine or transformation” test, and are not otherwise abstract. Therefore, they are § 101 subject matter. Further, the Supreme Court in the case *Bilski*, ruled the “machine or transformation” test is not the sole test for patent eligibility under Section 101.

Additionally, the rejections seem to incorporate a strategy of striking out any language to a general purpose computer which is an apparatus and then, judging the claims as directed to a method. “The computer is merely an object on which the method operates.” Office Action dated May 26, 2011, page 13; Office Action of March 14, 2012, page 15. There is no support for striking out claim language for analysis under Section 101. “The computer is generically recited such that it covers any computer capable of performing the claimed step(s). There is nothing in the specification to suggest that the computer is a particular machine.” Office Action dated May 26, 2011, page 13; Office Action of March 14, 2012, page 15. There is no legal support for denying patent protection to an invention where a generic computer is programmed, whether it is the process or the apparatus that is claimed. There is no legal citation for the refusal to permit patent protection to a programmed general purpose computer.

The rejection inexplicably states with respect to the process steps of claim 1: “the above limitations thus encompass performance of the recited actions without a machine, e.g. mentally, verbally or by hand ...” (March 14, 2012 Action, page 15) despite the fact that the claim makes it clear that a computer is used. Previously the rejection stated: “In this case, the method can be performed by a human and also by a computer,” (May 26, 2011 Action, page 14), despite the fact that the claims make it clear that a computer is used. This is a repeated complete refusal to acknowledge claim language.

The Office Action says that claim 1 has no recitation of a machine or transformation, though processing data in a non-transitory memory of a computer and computing data in a non-transitory memory of a computer are recited. Again claim language is disregarded.

The rejection states: “in claim 1 a general concept is involved in executing the steps of the method, i.e. leasing space and improvements. Use of the concept, as expressed in the method, would cover both known and unknown uses of the concept in other fields. Note here that the steps ... would cover all applications or implementations of the general concept.” March 14, 2012 Action, page 15. This language is confused. No citation is provided to legal authority.

This rejection is a mishmash of legal standards and is improper as a matter of law. The rejection confuses the issues of whether a claim is supported by the specification with whether a claimed process is patent-eligible under § 101. (For the reasons set forth above, the computer implementation is supported by the specification.) The rejection disregards claim language and

refuses patent protection for general purpose computers programmed to execute novel and unobvious steps. The rejection fails to set forth any proper statement of law and should be withdrawn.

In the Response to Arguments, the Examiner states at the bottom of page 28 of the March 14, 2012 Action, “the method claims ... do[es] not recite how a specific machine is used, and therefore recite[s] no more than an abstract idea.” The claims recite processing data in a non-transitory memory of a computer and computing data in a non-transitory memory of a computer. That is recitation of how a machine is used.

Surprisingly, the Action of March 14, 2012 states at page 29: “to process data, and to compute data requires no machine, only the conscious thought of the one controlling the operation.” The claims and specification are clear that the processing and computing are done by a machine, a computer. If the Examiner is interested in suggesting language to make this clearer to him that he will allow, Applicant is willing to consider his suggestions. Claim 197 (which is the claim the Examiners apparently regarded as supported by the specification but for the computer implementation issue) could be amended to explicitly recite “processing with a computer data stored in a non-transitory memory of a computer.” The suggestion is in order to see if the Examiner is agreeable to the language and will withdraw the Section 101 rejection. Response is requested.

The rejection under Section 101 is improper. All claims are in compliance with Section 101.

#### **IX. Rejection Under 35 U.S.C. §103**

Claims 28-30, 53-55, and 181-203 were rejected under 35 U.S.C. §103(a) as being unpatentable over Weatherly et al., U.S. Patent No. 6,049,784.

Weatherly fails to meet Applicant’s claims. This is the same prior art applied in the past. In the Office Action of May 26, 2011, as well as the Office Action of March 14, 2012, the Examiner acknowledges that Weatherly fails to meet the bulk of features claimed by Applicant.

Most notably, the Office Action of May 26, 2012 states at least at page 17, lines 18-19:

**“Weatherly does not explicitly teach the features where the lease is an improvements lease”.** See also Office Action of March 14, 2012, page 20, lines 14-16. That pretty much sums it up: Weatherly does not disclose a tenant improvements lease and has little to do with the claimed invention. The prior art of record does not disclose the claimed invention.

With respect to the rejection of Claims 28-30, 53-55 and 181-203 under 35 U.S.C. 103(a) as unpatentable over Weatherly et al., the rejections acknowledge that the Weatherly patent does not disclose numerous features recited in the claims. The Office Action then states, “However these features are interpreted as non-functional descriptive material as they do not materially affect the steps of soliciting proposals, soliciting offers of financing and notifying the respective parties when an offer matches a proposal.” May 26, 2011 Action at page 15. A similar statement appears at page 17, lines 7-10 of the March 14, 2012 Office Action. Thus, the Examiner gives no patentable weight to much of the recited claim language.

With respect to claims 29 and 54, the rejections acknowledge that the Weatherly patent does not disclose an additional feature recited in the claims. The Office Action of May 26, 2011 then states, “However Official notice is taken that soliciting offers of financing using an auction protocol is old and well known in the art. The motivation to combine this feature is that stated as it helps in facilitating numerous offers from several participants interested in making the offers.” May 26, 2011 Action at page 17. Similar statements are in the March 14, 2012 Action at page 19, line 19 to page 20, line 1. The rejection states a motivation to combine as “it helps in facilitating numerous offers from several participants interested in making offers.” March 14, 2012 Action at page 20, lines 1, 2.

The March 14, 2012 Action takes Official notice for the feature of soliciting proposals over the internet at page 17, lines 5, 6. The rejection states a motivation to combine as to help “a user solicit proposals in a timely and efficient manner from a wide gamut of potential clients across the internet compared to a manual process.” March 14, 2012 Action at page 17, lines 6, 7. This is the first time the rejections have ever tried to identify a motivation to combine teachings though the rejections are all under 35 U.S.C. 103. The rejection does not identify where the motivations to combine came from. They do not come from the prior art patent cited, Weatherly. They seem to be impermissible hindsight using Applicant’s invention as a roadmap.



With respect to claims 30 and 55, the rejections acknowledge that the Weatherly patent does not disclose an additional feature recited in the claims. The Office Action of May 26, 2011 then states, “However this feature is interpreted as as [sic] non-functional descriptive material as they [sic] do not materially affect the steps of storing information and analyzing the information.” Again the Examiner gives no patentable weight to recited claim language. Similar statements are made with respect to all the rejected claims in both the May 2011 and March 2012 Actions.

**In a nutshell, there is no prior art that actually discloses what the Applicant claims,** and so, in order to reject the claims, the Examiner has disregarded claim language. First, the Examiner disregards claim language as “non-functional descriptive material” with no basis in law. Then the Examiner tries to eliminate the need for identifying features in the prior art by taking “Official Notice” of features stated by the Examiner to be prior art.

With respect to many of the rejections (claims 181-203) that disregard claim language as “non-functional descriptive material”, it is unclear why the rejections are based on Section 103 of the Patent Act which addresses the issue of obviousness. No where do the rejections state the word “obvious” or allege that the claimed invention is obvious. No where do the rejections combine teachings or identify a motivation to combine teachings. The rejections are based on one reference and one reference alone. The rejections do not combine teachings within a single reference. Thus, a rejection under Section 103 is improper. There is no proper analysis under *Graham v. John Deere*.

Section 103 is not to be used as an excuse or fudge factor for rejecting an invention that is clearly not shown by a single reference, and hence a rejection under Section 102 is not appropriate. Section 103 is not a catch-all for rejecting claims when a rejection under Section 102 can not be established. The rejection acknowledges that the Weatherly patent does not disclose many features recited in the claims. Thus, the Examiner seems to be aware that he can not assert that the Weatherly patent anticipates the claims. A rejection under Section 102 is improper. It seems that the Examiner just could not bring himself to reject claims under Section 102 where the statement of the rejection gives a laundry list of claimed features not met by the reference. Apparently, he felt a rejection under Section 102 did not pass the “blush” test.

The rejection seems to be applied under Section 103 in order to obfuscate the facts that (1) the claim language is indisputably not met by a single reference, (2) the claim language is indisputably not anticipated by a single reference, (3) a rejection under Section 102 can not be established or asserted, and (4) the analysis of rejecting claims in view of prior art by striking out claim language is improper analysis. The case law cited in the Office Action, *In re Ngai*, *In re Gulack* and *In re Lowry*, does not support such faulty analysis as explained below, and even if it did, that would be very bad law and a request for a change in law would be in order. As set forth above, a rejection under Section 103 is improper also. The rejections do not even attempt to put forth a proper Section 103 analysis of the

The Office Actions of March 14, 2012, May 26, 2011 and February 19, 2010 strike out certain claim language as “non-functional descriptive material.” The MPEP gives no authorization to do what has been done in these Actions, and the Federal Circuit has forbidden it repeatedly.

In contrast, in the Office Action of October 3, 2008, at page 4, Examiner Subramanian characterized almost identical language in other claims as “*functional* descriptive material.” Additionally, the previous Action of February 19, 2010, at page 5, asserted that the claims recite “*functional* descriptive material.”<sup>12</sup> Previously, the Examiner somehow drew a conclusion that “functional descriptive material” contributes to non-patentability, identifying no recognizable legal principle. Now with respect to 35 U.S.C. §103, the Examiner seems to be maintaining that the same or similar language is now “nonfunctional.” The contradiction is now attempted to be explained as a typographical error though it seems the Patent Office was experimenting with new legal theories and took some tries to get one that they find satisfactory. Is the language functional or non-functional? This confusion on the Examiner’s part as to whether recited claim language is functional or non-function undermines the credibility of any rejection based upon the supposed distinction.

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<sup>12</sup> Applicant notes that there is no law whatsoever that turns on “descriptive material.” The only legally-relevant concept is “printed matter,” *In re Lowry*, 32 F.3d 1579, 1582–83, 32 USPQ2d 1031, 1034 (Fed. Cir. 1994), confined to “arrangements of *printed lines or characters*, useful and intelligible *only* to the human mind,” and that is not alleged here. Not only has the Examiner invented new law, even that invented law is misapplied.

With respect to claims 28-55, the Examiner essentially makes up the existence of prior art by taking "Official Notice" of what he says is old and well known with no evidence. If it is so old and well known, why can the Examiner not easily find and provide evidence? The Patent Office has systematically failed to provide support for where official notice has been taken. Applicant concludes that the Patent Office is either unable or unwilling to provide adequate support for taking official notice.

The misuse of official notice is exacerbated. The Patent Office makes an unsupported taking of official notice with respect to soliciting offers of financing using an auction protocol and soliciting proposals over the internet. That taking is then exacerbated by apparently basing a rejection for obviousness on the matter that was officially noticed using improper hindsight to find a motive to combine. The Patent Office can not fabricate prior art out of thin air using judicial notice and then base a rejection for obviousness on that fabrication. Further, the examiner seems to be using impermissible hindsight or taking Official Notice of the motivation to combine because the motivation is not disclosed or cited in the prior art reference Weatherly.

Taking "Official Notice" of the state of the art in a case that has been pending for 10 years is unfair and subject to even more uncertainty than in a recently filed case. The pertinent question is "Was it old and well known on July 7, 2000 when this case was filed?" The Examiner has provided not even a scintilla of evidence that he has an excellent memory regarding the state of the art over 12 years ago or that he is an expert on the **history** of the development of the art. What seems old and well known now, may not have been old and well known 12 years ago. It is inappropriate to take "Official Notice" in most cases, but especially improper in a case that has been pending for over 12 years. The rejections of claims 28 - 55 are improper and should be withdrawn for this additional reason.

All claims distinguish from the prior art of record and are in condition for allowance.

The prior art rejections of Applicant's apparatus claims seem to be an unfair back door attempt to deprive this Applicant of any patent protection at all for an invention that the Patent Office regards as a "business method" invention. Thus, it seems that when the Patent Office regards an invention as a "business method", the Applicant is unfairly denied patent protection even for the computer apparatus (which is not a method).

The rejection is a confused mix of legal concepts and therefore, there can be no meaningful reply. The rejection should be withdrawn.

The rejections of claims 28-30, 53-55 and 181-203 under 35 U.S.C. 103(a) as unpatentable over Weatherly et al. (U.S. Patent No. 6,049,784) are improper and should be withdrawn. It is respectfully submitted that the claims are not met by Weatherly et al., whether taken alone or in combination with the prior art of record or other unspecified teachings.

## **X. Conclusion**

Applicant respectfully submits that the claims are supported by the specification as filed; in compliance with 35 U.S.C. §112, second paragraph; statutory subject matter under 35 U.S.C. §101; and patentable under 35 U.S.C. §103 in view of Weatherly taken alone or in combination with other prior art of record or other unspecified teachings.

Applicant hereby authorizes the USPTO to communicate with any authorized representative concerning this application by electronic mail.

Applicant respectfully submits that the claims are in condition for allowance. Applicant requests that the application be passed to issue in due course. The Examiner is urged to telephone Applicant's undersigned counsel at the number noted below if it will advance the prosecution of this application, or with any suggestion to resolve any condition that would impede allowance. For the entire pendency of this application, the Commissioner is hereby

authorized to charge any additional required fees (including all extension of time fees), or credit any overpayment, to Deposit Account No. 50-3219, Order No. 1906-3-Polestar.

Respectfully submitted,

For

TI FUNDING GROUP, L.L.C.

Dated: September 14, 2012

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SN 09/611,548

#### Ombudsman Discussion Summary

On September 12, 2012, I spoke for a second time with the ombudsman Mathew Gart for 3600 Electronic Commerce. The first time I spoke with him, he put me in contact with the SPE Kyle. I had a telephonic Interview with Examiner Subramanian and SPE Klye as summarized in the Interview Summary filed. I requested contact with the Ombudsman on September 6, 2012. He contacted me on September 12, 2012. He told me that for practical purposes nothing is going to happen before the September 14, 2012, 6 month due date and to file an RCE or NOA or the case would go abandoned.

I explained that the case was under final though the examiner had articulated a new rationale for the rejection of one claim and others in the interview but had refused to tell me if that was the rationale and only rationale for the rejections of the other claims. The examiner refused to put the new rationale in writing. I explained that the problem was procedural. I asked the Ombudsman for a new Office Action that set forth the rejections and addressed my arguments. He told me to put that in the papers I file. He offered to put me in contact with Mr. Kyle again. He said that his role as Ombudsman is to facilitate putting me in contact with the person who can help me most and that he had done that, so he has done his job. I asked him what the authority of the ombudsman was and that I was trying to understand what it is an ombudsman does and what authority he has. He said he helped to facilitate the scheduling of an interview so he has performed his function.

The Ombudsman was unable to articulate the function of an ombudsman other than to act as an assistant to the examining corps that helps schedule interviews or to direct someone to "the person who can help them most." He did not articulate any other authority, nor any reason for not exercising any other authority in my case.

The functions of facilitating scheduling of interviews and finding the person to help are not the functions one would expect of an ombudsman given the definition of that word.

Donna L. Angotti  
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Reg. No. 32,679

***Gulack, Lowry, and Ngai***

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United States Court of Appeals,  
Federal Circuit.  
In re Max A. GULACK.  
Appeal No. 82-580.

March 30, 1983.

Before FRIEDMAN, BALDWIN and SMITH,  
Circuit Judges.

EDWARD S. SMITH, Circuit Judge.

This is an appeal from the decision of the U.S. Patent and Trademark Office Board of Appeals sustaining the rejection under 35 U.S.C. § 103 of claims 1- 4 and 6 of application serial No. 935,183, filed August 18, 1978, entitled "Educational and Recreational Mathematical Device in the Form of a Band, Ring or Concentric Rings." We reverse.

I.

The stated object of the disclosed invention is to exploit certain arithmetic properties of all prime numbers larger than 5, P, [FN1] to create the semblance of magic or to educate with respect to intriguing aspects of number theory.

FN1. The variable P is defined in the specification as any prime number (an integer not divisible without remainder by any number except itself and unity) greater than 5. *E.g.*, 7, 11, 13, etc.

A.

P-1

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n '

in which n is an integer greater than 1.

\*\*\*

\*\*\* It will be found that the number of digits in the quotient Q will always be P-1 or some integral fraction

If P = 7 (a prime greater than 5);  
then Q = 999,999 / 7; that is  
Q = 142,857.

The physical configuration of the invention is extremely simple. The appealed claims recite three key elements: (1) a *band*, ring, or set of concentric rings; (2) a plurality of individual *digits* imprinted on the band or ring at regularly spaced intervals; and (3) an *algorithm* by which the appropriate digits are developed.

The band [FN2] serves two functions: it supports the sequence of digits and it presents the digits as an endless sequence with no discrete beginning or end. The band is preferably an endless loop of paper, fabric, \*1383 or plastic material. Specific embodiments of the invention set forth in the specification and appealed claims include a belt, hatband, headband, skullcap border, necklace, ring, table edge, household device or utensil, jewelry, and other artifacts.

FN2. As stated by appellant in his specification, band is intended to mean a band, ring, or set of concentric rings.

The digits are integers, generated by the algorithm, and displayed at equal intervals on the outer surface of the band.

The algorithm for generating Q, the sequence of digits imprinted on the band, is also set forth in the specification.

A row of P-1 nines is always divisible by P to give a quotient Q which is an integral number.

Whenever a smaller number of nines is divisible by P to give an integral quotient Q, the number will always consist of some integral fractional part of P-1 nines, which may be designated as

of P-1. \*\*\* [FN3]

FN3. To illustrate:



If  $P = 13$ , the smallest number of nines  
divisible by 13 that yields an  
integral quotient is 6,  
thus  $Q = 999,999 / 13$   
 $Q = 76,923$ .  
Note that in accordance with the specification,  
(P-1) /  $n = 6$ , where  $n = 2$ , and  $P = 13$ .)

The specification describes three qualities of the sequence of digits Q, subject to manipulation for recreational or educational purposes. First, the digits have a "cyclic" nature. [FN4] Second, the number of digits in the prime P will fix the maximum number of

digits appearing in sequence in Q. For example,

FN4. To simplistically illustrate this cyclic feature:

If  $P = 7$ ;  
then  $Q = 142,857$ , and  
 $2Q = 285,714$ .

The sequence of digits is the same in each number; the starting position has merely shifted.

[I]f P is 2 digits, Q or any multiple of Q, or cyclic variation of Q or any multiple of any cyclic variation of Q, if reduced to the original number of digits as aforesaid, will never contain any sequence of any 2 digits more than once. \* \* \*

Finally, the digits of Q are subject to manipulation in accordance with procedures set forth in the specification to produce a series of nines.

Appellant recommends the 180 digit quotient Q (derived from  $P = 181$ ), because its length is sufficient to lend mystical qualities to the manipulation of the band yet short enough to be readily imprinted on the band. The

MAGIC RING OF HAYIM, constructed in accordance with the appealed claims, is capable of manipulation as set forth in the specification to perform magic tricks or to display various aspects of number theory.

The appealed claims read as follows:

1. An educational and recreational mathematical device comprising at least one band which is endless or adapted to have ends thereof fastened to form an endless band and a plurality of individual digits imprinted on the band at regularly spaced intervals, the digits when all read consecutively clockwise as a number constituting a quotient obtained by dividing a number constituted of

P-1  
---  
n

nines, in which P is a prime number greater than 5 and n is an integer at least 1, by P and adding to the lefthand end of said quotient any number of zeros necessary to

increase the number of digits in said quotient to

P-1  
---  
n '

n being so selected that

P-1

---

n

\*1384 nines is the minimum number of nines divisible by P so that said quotient is an intergral [sic] number.

2. Device according to claim 1, in which said band is endless.
3. Device according to claim 1, in which said band comprises an article of apparel.
4. Device according to claim 3, in which said band is part of a hat or cap.
6. Device according to claim 1 in which said band is an article of jewelry.

#### B.

The examiner rejected claims 1-4 and 6 on two grounds: as not directed to statutory subject matter, 35 U.S.C. § 101; and as unpatentable over Wittcoff, [FN5] 35 U.S.C. § 103. The board reversed the section 101 rejection, finding that the claims define an article of manufacture covered by 35 U.S.C. § 101.

[FN5]. E. Wittcoff, U.S. patent No. 2,796,680, issued June 25, 1957, for "Novelty Educational Hats." Wittcoff discloses a hat with an endless band having information printed in areas around both the inside and outside of the band. The hat has an aperture at the base of the crown through which an area of the band is viewed. The band can be rotated to align any specific area of information with the aperture. When an inquiry on the outside of the band is aligned with the aperture, the corresponding answer is viewed through the aperture from the inside of the hat.

In his section 103 rejection, the examiner stated that the appealed claims differed from Wittcoff only in the specific digits printed on the band. The examiner found no relationship between appellant's digits and band except that the band is the surface on which the digits are printed. The examiner cited *In re Miller* [FN6] for the proposition that "[m]ere printed matter can not impart a patentable feature to a claim." Applying *Parker v. Flook*, [FN7] the examiner viewed applicant's digits as well known and unable, therefore, to define over Wittcoff.

[FN6]. *In re Miller*, 418 F.2d 1392, 164 USPQ 46 (Cust. & Pat.App.1969).

[FN7]. *Parker v. Flook*, 437 U.S. 584, 98 S.Ct. 2522, 57 L.Ed.2d 451, 198 USPQ 193 (1978).

In affirming the 103 rejection, the board found no meaningful relationship between the digits and the band of the type indicated by the court in *Miller*.

Unlike the fact situation in *Miller*, the printed indicia claimed herein [convey] no meaningful information in regard to the substrate [they are] arranged on, [do] not require any size relationship of the substrate, and [do] not require any particular substrate to effectively convey the information. We are convinced that *there is no meaningful functional relationship between appellant's indicia and the claimed endless band*.

\* \* \* In our opinion, the endless loop formed by the hatband with numerical digits printed thereon is the same structure claimed by appellant and *the sole difference is in the content of the printed material*. Accordingly, *there being no functional relationship of the printed material to the substrate, as we have noted above, there is no reasons [sic] to give patentable weight to the content of the printed matter which, by itself, is non-statutory subject matter*.

\* \* \*

The rejection of claims 1 to 4 and 6 under 35 U.S.C. § 103 is sustained. [Emphasis supplied.]

We understand the board as not giving the printed matter patentable weight because the board felt that there is no functional relationship between the printed matter and the substrate. In doing so, we do not interpret the board as holding that the printed matter can be ignored because it, by itself, is non-statutory subject matter. The board cited no authority in analyzing the relevance of the lack of a functional relationship, or of the status of the printed matter as non-statutory subject matter, to its decision not to accord the printed matter patentable weight. Because of the possible ambiguity of the board's articulation of its holding, we feel compelled to clarify the distinction.

\*1385 [1] Differences between an invention and the prior art cited against it cannot be ignored merely because those differences reside in the content of the printed matter. [FN8] Under section 103, the board cannot dissect a claim, excise the printed matter from it, and declare the remaining portion of the mutilated claim to be unpatentable. The claim must be read as a whole. [FN9] If the board meant to disregard that basic principle of claim interpretation, we must reverse the rejection as a matter of law.

[FN8]. A "printed matter rejection" under § 103

stands on questionable legal and logical footing. Standing alone, the description of an element of the invention as printed matter tells nothing about the differences between the invention and the prior art or about whether that invention was suggested by the prior art. A printed matter rejection is based on case law antedating the 1952 patent act, employing a point of novelty approach. In re Sterling, 70 F.2d 910, 21 USPQ 519 (CCPA 1934). The 1952 act legislatively revised that approach through its requirement that the claim be viewed as a whole in determining obviousness. Graham v. John Deere Co., 383 U.S. 1, 86 S.Ct. 684, 15 L.Ed.2d 545, 148 USPQ 459 (1966). The CCPA has considered *all* of the limitations of the claims, including the printed matter limitations, in determining whether the invention would have been obvious. See In re Royka, 490 F.2d 981, 180 USPQ 580 (Cust. & Pat.App.1974); In re Cavrich, 451 F.2d 1091, 172 USPQ 121 (Cust. & Pat.App.1971). In Royka, 490 F.2d at 985, 180 USPQ at 583, the CCPA, notably weary of reiterating this point, clearly stated that printed matter may well constitute structural limitations upon which patentability can be predicated.

FN9. 35 U.S.C. § 103 (1976) specifically provides that:

"A patent may not be obtained \* \* \* if the differences between the subject matter sought to be patented and the prior art are such that *the subject matter as a whole* would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. \* \* \*" (Emphasis supplied.)

See Graham, 383 U.S. 1, 86 S.Ct. 684, 15 L.Ed.2d 545, 148 USPQ 459; Flook, 437 U.S. at 594 n. 16, 98 S.Ct. at 2527 n. 16, 198 USPQ at 199 n. 16 (noting the § 103 requirement of reading claims as a whole and extending that requirement to § 101); Diamond v. Diehr, 450 U.S. 175, 188, 101 S.Ct. 1048, 1057, 67 L.Ed.2d 155, 209 USPQ 1, 9 (1981) (also applying that requirement in a § 101 setting); Royka, 490 F.2d at 985, 180 USPQ at 583.

[2] If, instead, the board sought only to construe and apply *Miller* within the context of a section 103 rejection, we find no error in the board's articulation of the law. Where the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability. [FN10] Although the printed matter must be considered,

in that situation it may not be entitled to patentable weight. This, apparently, was the board's conclusion with respect to Gulack's invention.

FN10. Miller, 418 F.2d 1392, 164 USPQ 46.

However, because we find that the digits of Gulack's invention are functionally related to the band, and because Wittcoff fails to disclose or suggest the subject matter recited in the appealed claims, considered as a whole, we reverse.

The sole issue is whether the board correctly affirmed the rejection of the appealed claims as obvious in view of Wittcoff under 35 U.S.C. § 103.

## II.

The board, responding to appellant's arguments based on *In re Miller*, [FN11] found no functional relationship of the type present in *Miller*.

FN11. *Id.*

## A.

*Miller* involved an appeal from the board's affirmance of the rejection of claims drawn to a measuring device for use in fractioning recipes. No statutory ground for the rejection was specified. The rejection in *Miller* was on the basis that the invention lacked "the required cooperative structural relationship necessary before the printed matter can be given patentable weight." [FN12]

FN12. *Id.* at 1395, 164 USPQ at 48.

\*1386 The CCPA [FN13] responded, stating: [FN14]

FN13. The holdings of the United States Court of Customs and Patent Appeals and of the United States Court of Claims were adopted as precedent in the Court of Appeals for the Federal Circuit in South Corp. v. United States, 690 F.2d 1368, 1370, 215 USPQ 657, 658 (Fed.Cir.1982).

FN14. Miller, 418 F.2d at 1396, 164 USPQ at 48-49.

[i]t seems to us that what is significant here is not structural but *functional* relationship \* \* \*.

\* \* \*

As for the examiner's characterization of the indicia and legend as "unpatentable printed matter," we note that the examiner himself recognizes the fact that printed matter, in an article of manufacture claim, *can* be given "patentable weight." He did so in allowing claims.

His characterization of printed matter as "unpatentable" is beside the point; no attempt is here being made to patent printed matter as such. The fact that printed matter *by itself* is not patentable subject matter, because non-statutory, is no reason for ignoring it when the claim is directed to a combination. Here there is a new and unobvious functional relationship between a measuring *receptable*, volumetric *indicia* thereon indicating volume in a certain ratio to actual volume, and a *legend* indicating the ratio, and in our judgment the appealed claims properly define this relationship. \*  
\* \* [Emphasis in original.]

The court found that the printed matter of Miller's invention was functionally related to the volume measuring device and reversed the rejection.

#### B.

[3] Similarly, in examining Gulack's invention, we find that a functional relationship does exist between the printed matter and the substrate. A functional relationship of the precise type found by the CCPA in *Miller* --to size or to type of substrate, or conveying information about substrate--is not required. What is required is the existence of *differences* between the appealed claims and the prior art sufficient to establish patentability. The bare presence or absence of a specific functional relationship, without further analysis, is not dispositive of obviousness. Rather, the critical question is whether there exists any new and unobvious functional relationship between the printed matter and the substrate. [FN15] With these thoughts in mind we turn now to examine the obviousness of the appealed claims in light of the cited reference, Wittcoff.

FN15. *Id.* at 1396, 164 USPQ at 49.

#### III.

[4] Appellant and the board agree that the sole difference between the appealed claims and Wittcoff resides in the content of the printed matter. The board declined, however, to accord that printed matter patentable weight.

Wittcoff discloses the application of printed matter to a band. The printed matter suggested by Wittcoff is data that is to be committed to memory, such as addition, subtraction, multiplication, history dates, historical personages, and the like. The data items are independent, bearing no direct relation to the other data entries on Wittcoff's band. The relationship of the Wittcoff data to the band is for purposes of support and display. The data must be imprinted on the band so that the answer to the inquiry displayed on the outer surface of the band is visible when viewed from inside the hat through the aperture. Wittcoff discloses an endless band, yet the

areas of printed matter displayed on the Wittcoff band are not arranged in any particular sequence.

The appealed claims, on the other hand, require a particular sequence of digits to be displayed on the outside surface of a band. These digits are related to the band in two ways: (1) the band supports the digits; and (2) there is an endless sequence of digits--each digit residing in a unique position with \*1387 respect to every other digit in an endless loop. Thus, the digits exploit the endless nature of the band.

The differences between the appealed claims and Wittcoff reside in appellant's particular sequence of digits Q, and in the derivation of that sequence of digits. These features are critical to the invention disclosed by the appealed claims. Wittcoff neither discloses nor suggests either feature.

#### IV.

We reject the board's conclusion that there is no functional relationship between the printed matter and the substrate of the appealed claims. Such a relationship does exist and it is different from the relationship exhibited by the corresponding elements of the Wittcoff reference. We find no suggestion in the cited reference of appellant's particular sequence of digits Q or of the derivation of that sequence.

REVERSED.

FRIEDMAN, Circuit Judge, dissenting.

I would affirm the Board's decision sustaining the rejection of the claimed invention as obvious under section 103.

The appellant's primary claim is for "[a]n educational and recreational mathematical device," namely, an endless band upon which are imprinted numbers in a particular sequence derived from the application of an algorithm. Subordinate claims describe the band as an article of apparel, part of a hat or cap, or an article of jewelry.

The algorithm is not patentable and "is treated as though it were a familiar part of the prior art." *Parker v. Flook*, 437 U.S. 584, 592, 98 S.Ct. 2522, 2526, 57 L.Ed.2d 451 (1978). Similarly, the particular numbers produced by an abstract solution of the algorithm cannot themselves be claimed, although the practical application of those numbers may be patentable. See *In re Meyer*, 688 F.2d 789, 215 USPQ 193 (Cust. & Pat.App.1982); *In re Abele*, 684 F.2d 902, 214 USPQ 682 (Cust. & Pat.App.1982). The issue under section 103 is whether, to one of ordinary skill in the art of developing algorithms and applying their

product for educational or recreational purposes, it would have been obvious to apply the algorithm by displaying the result of its solution on a continuous band, as the appellant disclosed in his patent application. The Board correctly answered that question affirmatively.

The *Wittcoff* patent teaches the use of a hatband to display numbers as an "educational or game-playing device." Although there are differences between the display of numbers in appellant's invention and their display in *Wittcoff*, it would have been obvious from *Wittcoff* for one of ordinary skill in the art who wanted to use the numbers the algorithm produced for appellant's purposes, to display them on a continuous band. Indeed, one of the appellant's subordinate claims displays the numbers on a hat or cap.

The display of the numbers on a band or other object that permits them to be shown in a series without a particular beginning or end would have been obvious even without *Wittcoff*. The numbers can be used for the recreational and educational purposes the appellant claims merely by arranging them in a continuous series. They do not need to be placed on an "endless band" as the appellant claimed. In fact, at oral argument the appellant conceded that the same result his invention accomplishes also could be accomplished by placing the numbers in a continuous series upon a cube or other shape, or even by writing them in a circle upon a flat surface. The precise nature of the object on which the numbers are placed is thus of little importance. The only matter that is of significance--the arrangement of the numbers as a continuous series--would have been obvious to anyone of ordinary skill in the art who knew the algorithm.

In *In re Miller*, 418 F.2d 1392, 164 USPQ 46 (Cust. & Pat.App.1969), as the court points out, the court determined that there was "a new and unobvious functional relationship" between the measuring receptacles and the descriptions and legends on \*1388 them. In the present case, unlike *Miller*, I do not think that the "functional relationship" between the numbers resulting from the application of the algorithm and their display upon the continuous band was new and unobvious.

703 F.2d 1381, 217 U.S.P.Q. 401

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**H**

United States Court of Appeals,  
Federal Circuit.

In re Edward S. LOWRY (Serial No. 07/181,105).

No. 93-1558.

Aug. 26, 1994.

Rehearing Denied; Suggestion for Rehearing In Banc  
Declined Dec. 19, 1994.

Before RICH, Circuit Judge, SKELTON, Senior  
Circuit Judge, and RADER, Circuit Judge.

RADER, Circuit Judge.

Edward S. Lowry appeals the U.S. Patent and Trademark Office Board of Patent Appeals and Interferences' rejection of all claims in Patent Application Serial No. 07/181,105. On July 30, 1993, the Board reversed the rejection of claims 1 through 5 under 35 U.S.C. § 101 (1988). The Board also affirmed the rejection of claims 1 through 19 under 35 U.S.C. § 103 (1988) and claims 20 through 29 under 35 U.S.C. § 102(e) (1988). This court reverses.

## BACKGROUND

Lowry's patent application--"Data Processing System Having a Data Structure with a Single, Simple Primitive"--relates to the storage, use, and management of information residing in a memory. The PTO does not dispute the features and advantages of Lowry's claimed invention. The invention provides an efficient, flexible method of organizing stored data in a computer memory.

A memory stores data according to a particular order or arrangement. Application programs use stored data to perform specified functions. A data model provides the framework for organizing and representing information used by an application program. Data models define permissible data structures-- organizational structures imposed upon the data used by the application program--compatible with particular data processing systems. Data structures are the physical implementation of a data model's organization of the data. Data structures are

often shared by more than one application program.

The prior art contains data models and data structures. Prior art data models are generally one of two kinds: functionally expressive or structurally expressive data models. Functionally expressive data models enable complex nested operations using large blocks of data. These data models, however, are limited to a narrow class of applications and generally require more complex interfaces to functionality. Structurally expressive data models, on the other hand, define more varied data structures capable of representing accurately complex information. These data models, however, make complex nested operations on large blocks of data quite difficult.

Lowry's invention seeks to optimize both structural and functional expressiveness. Lowry discloses a data structure accessible by many different application programs. Lowry's data structure is based upon the "Attributive data model." The Attributive data model represents complex information in terms of attributes and relationships between attributes. According to Lowry's specification, "[a]n attribute expresses the idea that one thing is attributed to another thing." Thus, the Attributive data model capitalizes on the concept that a database is a collection of attributions, whereby information is represented in terms of its characteristics and relationships to other information.

In accordance with the Attributive data model, Lowry's data structure comprises a plurality of attribute data objects (ADOs) stored in memory. An ADO is a single primitive data element "compris[ing] sequences of bits which are stored in the memory \*1581 as electrical (or magnetic) signals that represent information." It contains information used by the application program and information regarding its relationship with other ADOs. Lowry asserts that his data structure is functionally expressive by virtue of its representation of information in terms of attributes. Lowry also states that "[s]tructural expressiveness is achieved by making that primitive data object extremely simple and allowing for highly unconstrained interconnections between attribute instances."

According to the claimed invention, ADOs have both hierarchical and non-hierarchical interrelationships. A few specific rules govern these relationships. Because the claimed invention uses single ADOs governed by simple organizational rules, Lowry asserts that it may flexibly and

accurately represent complex objects and relationships. The hierarchical relationships form a conceptual pyramidal structure. Hierarchical correlations describe "holding" or "being held" relationships. An ADO can "hold" one or more other ADOs. Each ADO, however, can "be held" by only one other ADO. Thus, while capable of holding many others, an ADO can be held by only one other ADO. One ADO, called the apex ADO, holds at least one other ADO but is held by no other ADO. This apex ADO is the only ADO that lacks a being-held relationship. From the apex ADO, the hierarchical relationships fan out in a pyramidal structure.

ADOs also have non-hierarchical relationships. These are essentially "pointing" relationships between ADOs. There are two basic types of ADOs: (1) element data objects, which refer to only themselves, and (2) relation data objects, which refer to one other ADO, called a referent ADO. A referent \*\*\*\*1033 ADO is merely an ADO that a relation data object refers to. Each ADO can be a referent ADO for more than one ADO. According to Lowry's specification, this arrangement of hierarchically and non-hierarchically related single primitive ADOs facilitates software operations such as retrieval, addition, and removal of information in the data structure.

Claims 1 through 5 claim a memory containing a stored data structure. Claim 1 is representative:

1. A memory for storing data for access by an application program being executed on a data processing system, comprising:
  - a data structure stored in said memory, said data structure including information resident in a database used by said application program and including:
    - a plurality of attribute data objects stored in said memory, each of said attribute data objects containing different information from said database;
    - a single holder attribute data object for each of said attribute data objects, each of said holder attribute data objects being one of said plurality of attribute data objects, a being-held relationship existing between each attribute data object and its holder attribute data object, and each of said attribute data objects having a being-held relationship with only a single other attribute data object, thereby establishing a hierarchy of said plurality of attribute data objects;
    - a referent attribute data object for at least one of said attribute data objects, said referent attribute

data object being nonhierarchically related to a holder attribute data object for the same at least one of said attribute data objects and also being one of said plurality of attribute data objects, attribute data objects for which there exist only holder attribute data objects being called element data objects, and attribute data objects for which there also exist referent attribute data objects being called relation data objects; and  
 an apex data object stored in said memory and having no being-held relationship with any of said attribute data objects, however, at least one of said attribute data objects having a being-held relationship with said apex data object.

Claims 6 through 19 claim a data processing system executing an application program, \*1582 containing a database, a central processing unit (CPU) means for processing the application program, and a memory means for holding the claimed data structure. Claims 20-23, 25, and 28 specify methods of accessing, creating, adding, and erasing ADOs within the data structure. Claim 24 specifies a method for creating a data structure. Claims 26, 27, and 29 claim methods of creating and erasing non-hierarchical relationships between ADOs and referent ADOs.

#### THE PROCEEDINGS BEFORE THE PATENT AND TRADEMARK OFFICE

The examiner rejected claims 1 through 5 under 35 U.S.C. § 101 as non- statutory subject matter. The examiner also rejected claims 1 through 19 under 35 U.S.C. § 103 as obvious in light of U.S. Patent No. 4,774,661 (Kumpati). Finally, the examiner rejected claims 20 through 29 under 35 U.S.C. § 102(e) as anticipated by Kumpati.

The Board reversed the 35 U.S.C. § 101 rejection. The Board found that claims 1 through 5, directed to a memory containing stored information, as a whole, recited an article of manufacture. The Board concluded that the invention claimed in claims 1 through 5 was statutory subject matter.

When evaluating patentability under sections 102 and 103, the Board failed to give patentable weight to the claimed data structure. The Board stated that the claims on appeal specify relationships between the ADOs stored in the memory. The Board analogized Lowry's data structure comprised of ADOs to printed matter and relied on this statement from In re Gulack, 703 F.2d 1381, 217 USPQ 401 (Fed.Cir.1983):

Where the printed matter is not functionally related to the substrate, the printed matter will not

distinguish the invention from the prior art in terms of patentability. Although the printed matter must be considered, in that situation it may not be entitled to patentable weight.

Id. 703 F.2d at 1385.

In Gulack, this court concluded that "the critical question is whether there exists any new and unobvious functional relationship between the printed matter and the substrate." Id. at 1386 (footnote omitted). The Board therefore framed the question as whether a new, nonobvious functional relationship exists between the printed matter (data structure with ADOs) and the substrate (memory). The Board determined that Lowry did not show such a functional relationship. Thus, the Board agreed with the examiner that the data structure could not distinguish the claimed invention from the prior art. The Board held that Kumpati, disclosing a CPU using a memory and containing stored data in a data structure, rendered \*\*\*\*1034 all claims either anticipated or obvious. Lowry appealed.

#### DISCUSSION

[1][2] This court reviews the Board's determination of obviousness *de novo*. In re Woodruff, 919 F.2d 1575, 1577, 16 USPQ2d 1934, 1935 (Fed.Cir.1990). This court reviews factual findings underlying the obviousness determination for clear error. Id. Whether a prior art reference anticipates the claimed invention is a question of fact reviewed under the clearly erroneous standard. In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed.Cir.1986).

[3] The Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art. Gulack, 703 F.2d at 1385. The PTO may not disregard claim limitations comprised of printed matter. See Gulack, 703 F.2d at 1384; see also Diamond v. Diehr, 450 U.S. 175, 191, 101 S.Ct. 1048, 1059, 67 L.Ed.2d 155, 209 USPQ 1, (1981). This court in Gulack, however, would not give patentable weight to printed matter absent a new and unobvious functional relationship between the printed matter and the substrate. The Board in this case determined that Lowry's data structures were analogous to printed matter and therefore the specific features of the constituent ADOs deserved no patentable weight without a functional printed matter-substrate relationship. Finding no such functional relationship between the ADOs \*1583 and the memory, the Board refused to consider the

specific data structure limitations.

[\*\*\*\*1] As an initial matter, this court notes that Gulack cautioned against a liberal use of "printed matter rejections" under section 103:

A "printed matter rejection" under § 103 stands on questionable legal and logical footing. Standing alone, the description of an element of the invention as printed matter tells nothing about the differences between the invention and the prior art or about whether that invention was suggested by the prior art.... [The Court of Customs and Patent Appeals], notably weary of reiterating this point, clearly stated that printed matter may well constitute structural limitations upon which patentability can be predicated.

Gulack, 703 F.2d at 1385 n. 8. Despite this cautioning, the Board erroneously extended a printed matter rejection under sections 102 and 103 to a new field in this case, which involves information stored in a memory. This case, moreover, is distinguishable from the printed matter cases. The printed matter cases "dealt with claims defining as the invention certain novel arrangements of printed lines or characters, useful and intelligible only to the human mind." In re Bernhart, 417 F.2d 1395, 1399, 163 USPQ 611, 615 (CCPA 1969). The printed matter cases have no factual relevance where "the invention as defined by the claims requires that the information be processed not by the mind but by a machine, the computer." Id. (emphasis in original). Lowry's data structures, which according to Lowry greatly facilitate data management by data processing systems, are processed by a machine. Indeed, they are not accessible other than through sophisticated software systems. The printed matter cases have no factual relevance here.

[4] Nor are the data structures analogous to printed matter. Lowry's ADOs do not represent merely underlying data in a database. ADOs contain both information used by application programs and information regarding their physical interrelationships within a memory. Lowry's claims dictate how application programs manage information. Thus, Lowry's claims define functional characteristics of the memory.

Contrary to the PTO's assertion, Lowry does not claim merely the information content of a memory. Lowry's data structures, while including data resident in a database, depend only functionally on information content. While the information content affects the exact sequence of bits stored in



accordance with Lowry's data structures, the claims require specific electronic structural elements which impart a physical organization on the information stored in memory. Lowry's invention manages information. As Lowry notes, the data structures provide increased computing efficiency.

Indeed, Lowry does not seek to patent the Attributive data model in the abstract. Nor does he seek to patent the content of information resident in a database. Rather, Lowry's data structures impose a physical organization on the data.

In Lowry's invention, the stored data adopt no physical "structure" per se. Rather, the stored data exist as a collection of bits having information about relationships between the ADOs. Yet this is the essence of electronic structure. In Bernhart, this court's predecessor noted:

There is one further rationale used by both the board and the examiner, namely, that the provision of new signals to be stored by the computer does not make it a new machine, i.e. it is *structurally* the same, no matter how new, useful and unobvious the result.... To this question we say that if a \*\*\*\*1035 machine is programmed in a certain new and unobvious way, it is physically different from the machine without that program; its memory elements are differently arranged. The fact that these physical changes are invisible to the eye should not tempt us to conclude that the machine has not been changed.

Bernhart, 417 F.2d at 1400 (emphasis added).

More than mere abstraction, the data structures are specific electrical or magnetic \*1584 structural elements in a memory. According to Lowry, the data structures provide tangible benefits: data stored in accordance with the claimed data structures are more easily accessed, stored, and erased. Lowry further notes that, unlike prior art data structures, Lowry's data structures simultaneously represent complex data accurately and enable powerful nested operations. In short, Lowry's data structures are physical entities that provide increased efficiency in computer operation. They are not analogous to printed matter. The Board is not at liberty to ignore such limitations.

[5] Even assuming, arguendo, that data objects and data structures are analogous to printed matter, the Board erred in its reliance on Gulack. As part of its burden to establish a *prima facie* case of obviousness, see In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d

1443, 1444 (Fed.Cir.1992), the burden of establishing the absence of a novel, nonobvious functional relationship rests with the PTO. "If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent." *Id.* The PTO did not establish that the ADOs, within the context of the entire claims, lack a new and nonobvious functional relationship with the memory. The ADOs follow a particular sequence that enables more efficient data processing operations on stored data. The ADOs facilitate addition, deletion, and modification of information stored in the memory. In sum, the ADO's perform a function. Gulack requires no more. See Gulack, 703 F.2d at 1386.

[6] With the foregoing in mind, this court now turns to the specific prior art rejections. The Board rejected claims 1 through 19 under section 103 as obvious over Kumpati. The Board found that claims 20-29 were anticipated by Kumpati. Claims 1 through 19 include a memory, comprising the claimed data structure, for storing data for access by an application program. Claims 20 through 29 describe methods of performing data management operations with respect to the claimed data structure.

The Kumpati patent, entitled "Database Management System with Active Data Dictionary," discloses a database management system containing an active data dictionary that the user can access and modify. Kumpati's data dictionary contains information about the structure and usage of the data stored in the database management system.

Kumpati discloses a data model within a database management system complete with hierarchical and relational interrelationships. Kumpati further defines an "attribute" as a "function that maps an entity set or relationship set into one or more value sets." A value set, in turn, "further identifies (or defines) the entity by populating these attributes with specific items of data which define these characteristics."

[\*\*\*2] Kumpati does not, however, disclose Lowry's ADOs and their specific hierarchical and non-hierarchical relationships. More specifically, Kumpati does not disclose the claimed pyramidal arrangement of hierarchically arranged ADOs, complete with apex ADO. Kumpati's relationship sets are different from Lowry's relation data objects, having non-hierarchical relationships with other ADOs. Neither are Kumpati's "attributes," performing a mapping function, equivalent to Lowry's ADOs, containing information used by the

application program as well as information regarding its interrelationships with other ADOs.

Lowry's claimed invention involves an organization of information and its interrelationships which Kumpati neither discloses nor suggests. Kumpati also does not render Lowry's claims obvious. The Board erred in holding otherwise. Claims 1 through 19 are, as a whole, not obvious in light of Kumpati.

Because Kumpati does not contain all limitations of claims 20 through 29, the Board erred in holding these claims anticipated by Kumpati. Therefore, this court reverses the section 102 rejection of claims 20 through 29.

#### CONCLUSION

The Board erred by denying patentable weight to Lowry's data structure limitations. \*1585 This court reverses the Board's determination that claims 1 through 19 are obvious. This court also reverses the Board's decision that claims 20 through 29 are anticipated under section 102.

*REVERSED.*

32 F.3d 1579, 63 USLW 2184, 32 U.S.P.Q.2d 1031

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**H****Briefs and Other Related Documents**

United States Court of Appeals,  
Federal Circuit.

In re John NGAI and David Lin.  
No. 03-1524.

May 13, 2004.

Before MICHEL, GAJARSA, and LINN, Circuit  
Judges.

PER CURIAM.

Petitioners John Ngai and David Lin (collectively "Ngai") appeal from the decision by the Board of Patent Appeals and Interferences ("Board") rejecting claim 19 of the petitioner's patent application No. 09/597,608 (the "'608 application") as being anticipated by prior art. *Ex parte Ngai*, No.2002-1092 (BPAI 2003); see 35 U.S.C. § 102(b). We find that the Board's decision is supported by substantial evidence and accordingly affirm.

### 1. BACKGROUND

The study of nucleic acids, including ribonucleic acids ("RNA"), has a wide variety of applications in the field of biological sciences. Unfortunately, oftentimes the amount of RNA that experimenters can extract from the cells can be quite small. Experimenters must duplicate the material many times over to assemble a quantity sufficient for experimentation. This process is called "amplification." Additionally, some RNA strands may be difficult to detect in cells. A process called "normalization" enhances experimenters' ability to detect the RNA that is expressed at low levels.

Ngai invented a new method for amplifying and normalizing RNA. He submitted the '608 application to patent this invention. The '608 application contained 20 claims. Claims 1-18 are drawn to a method of amplifying RNA. Claim 1 is representative of the method claims 1-18 and reads:

A method for normalizing and amplifying an RNA population comprising the steps of:

copying the message RNA (mRNA) to form first single stranded (ss) cDNA;  
converting the first ss-cDNA to first double stranded (ds) cDNA;  
linearly amplifying the first ds-cDNA to form first amplified RNA (aRNA);  
tagging the 3' end of the first aRNA with a known sequence to form 3' tagged first aRNA;  
copying the 3'-tagged first aRNA to form second ss-cDNA; and  
normalizing the mRNA or the first aRNA.

Claim 19 is drawn to a kit designed to perform the method recited in Claim 1. Claim 19 reads:

A kit for normalizing and amplifying an RNA population, said kit comprising instructions describing the method of claim 1 and a premeasured portion of a reagent selected from the group consisting of: oligo dT biotinylated primer, T7 RNA polymerase, annealed biotinylated \*1338 primers, streptavidin beads, polyadenyl transferase, reverse transcriptase, RNase H, DNA pol I, buffers and nucleotides. (emphasis added).

Ngai does not dispute that prior art teaches a kit comprising instructions and a 10X buffer. [FN1]

[FN1] Ngai also does not dispute that a 10X buffer is a type of buffer mentioned in proposed claim 19.

### *Proceedings Below*

The Examiner allowed claims 1-18 but rejected claims 19 and 20 as unpatentable, under 35 U.S.C. § 102(b) and 35 U.S.C. § 103 respectively. The Board reversed the rejection with respect to claim 20 and affirmed the rejection of claim 19 as anticipated by prior art.

The Board agreed with the Examiner that prior art anticipates claim 19 because it teaches each and every limitation of the claim including instructions and a buffer agent. The Board concluded that the only difference between the prior art and claim 19 is the *content* of the instructions. Finding that the content of the instructions was not "functionally related" to the kit, the Board concluded that claim 19 should be rejected as anticipated by prior art.

Ngai appealed the Board's decision to this Court. The only issue presented by this appeal is whether

claim 19 should have been allowed. We have jurisdiction under 28 U.S.C. § 1295(a)(4).

## II. STANDARD OF REVIEW

[1] Anticipation is a question of fact. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed.Cir.1997). We review PTO's factual findings for substantial evidence. *In re Gartside*, 203 F.3d 1305, 1315 (Fed.Cir.2000).

## III. DISCUSSION

Ngai argues that the addition of new printed matter to a known product makes the product patentable. He rests his argument on the fact that claim 19 is limited to kits containing instructions teaching the method described in claim 1. Ngai argues that because prior art does not teach a limitation of "instructions describing the method of claim 1," combined with an amplification kit, the petitioner's claim cannot be anticipated. Ngai relies on the language of *In re Gulack*, 703 F.2d 1381 (Fed.Cir.1983): "[The][d]ifference between an invention and the prior art cited against it cannot be ignored merely because those differences reside in the content of the printed matter." *Id.* at 1385.

The PTO argues that Ngai's claim merely teaches a new use for an existing product. Thus, according to the PTO, Ngai can claim the new use as a method, but he cannot claim the existing product itself. The PTO relies on a different passage of *Gulack* and argues that in order to qualify under *Gulack*, the printed matter must be functionally related to the underlying object. "The critical question is whether there exists any new and unobvious functional relationship between the printed matter and the substrate." *Id.* at 1386.

The dispute between Ngai and PTO reduces to the question of the proper meaning of *Gulack*. The PTO has the better argument. In *Gulack*, the Board rejected a claim directed to a circular band designed for mathematical and educational purposes. The invention consisted of "(1) a band, ring, or set of concentric rings; (2) a plurality of individual digits imprinted on \*1339 the band or ring at regularly spaced intervals; and (3) an algorithm by which the appropriate digits are developed." *Id.* at 1387. The rejection was premised upon the fact that a circular band with items printed upon it was well known in the art. *See id.* at 1384. We reversed, finding that the numbers printed on the band had a functional relationship to the band itself. The Court stated: "[t]he[ ] digits are related to the band in two ways: (1) the band supports the digits; and (2) there is an

endless sequence of digits-each digit residing in a unique position with respect to every other digit in an endless loop. Thus, the digits exploit the endless nature of the band." *Id.* at 1386-87. Although the prior art disclosed a band with printed matter, the Court concluded that the prior art neither "disclose[d] nor suggest [ed] either feature" of Gulack's invention. *Id.* at 1387.

[2] This case, however, is dissimilar from *Gulack*. There the printed matter and the circularity of the band were interrelated, so as to produce a new product useful for "educational and recreational mathematical" purposes. Here, addition of a new set of instructions into a known kit does not interrelate with the kit in the same way as the numbers interrelated with the band. In *Gulack*, the printed matter would not achieve its educational purposes without the band, and the band without the printed matter would similarly be unable to produce the desired result. Here, the printed matter in no way depends on the kit, and the kit does not depend on the printed matter. All that the printed matter does is teach a new use for an existing product. As the *Gulack* court pointed out, "[w]here the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability." *Id.* If we were to adopt Ngai's position, anyone could continue patenting a product indefinitely provided that they add a new instruction sheet to the product. This was not envisioned by *Gulack*. Ngai is entitled to patent his invention of a new RNA extraction method, and the claims covering that invention were properly allowed. He is not, however, entitled to patent a known product by simply attaching a set of instructions to that product.

## CONCLUSION

For the foregoing reasons, we find that the Board's decision is supported by substantial evidence, and accordingly affirm.

## AFFIRMED

## IV. COSTS

No costs.

367 F.3d 1336, 70 U.S.P.Q.2d 1862

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